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ARMY APPROPRIATION BILL, 1922

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HEARING

BEFORE

SUBCOMMITTEE OF HOUSE COMMITTEE ON APPROPRIATIONS

CONSISTING OF

MESSRS. DANIEL R. ANTHONY (CHAIRMAN), LOUIS C. CRAMTON,
C. BASCOM SLEMP, S. HUBERT DENT, JR.,
AND THOMAS UPTON SISSON

IN CHARGE OF

ARMY APPROPRIATION BILL FOR 1922

SIXTY-SIXTH CONGRESS
THIRD SESSION



WASHINGTON
GOVERNMENT PRINTING OFFICE
1921

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HOUSE OF REPRESENTATIVES.

SIXTY-SIXTH CONGRESS, THIRD SESSION.

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ARMY APPROPRIATION BILL, 1922.

HEARING CONDUCTED BY THE SUBCOMMITTEE MESSRS. DANIEL R. ANTHONY, Jr. (CHAIRMAN), LOUIS C. CRAMTON, C. BASCOM SLEMP, S. HUBERT DENT, Jr., AND THOMAS UPTON SISSON, OF THE COMMITTEE ON APPROPRIATIONS, HOUSE OF REPRESENTATIVES, IN CHARGE OF THE ARMY APPROPRIATION BILL FOR 1922, ON THE DAYS FOLLOWING, NAMELY:

TUESDAY, DECEMBER 14, 1920.

STATEMENT OF HON. NEWTON D. BAKER, SECRETARY OF WAR, ACCOMPANIED BY MAJ. GEN. PEYTON C. MARCH, CHIEF OF STAFF, AND MAJ. GEN. PETER C. HARRIS, THE ADJUTANT GENERAL.

OFFICE OF SECRETARY OF WAR.

GENERAL POLICY.

Mr. ANTHONY. Mr. Secretary, we have before the subcommittee this morning the tentative draft of the Army appropriation bill for 1922, and before we proceed with the items in the bill we would like to get your view as to the general policy on which the estimates for this appropriation were built up.

Secretary BAKER. The general policy, Mr. Chairman, of course, is that prescribed by the Army reorganization act. The War Department recommended a very much larger peace-time establishment than Congress finally adopted, but the adoption of the reorganization act was, of course, accepted at once, and heartily, by the War Department as the determination of the Congress as to the policy of Congress.

In the matter of a peace-time establishment this estimate is an attempt on the part of the department to provide the necessary money for the pay, subsistence, upkeep, and such permanent additions to the equipment of the Army in the fiscal year 1921-22 as seemed to be necessary to create the kind of an Army contemplated by the reorganization act.

SIZE OF THE ARMY.

(See p. 12.)

Mr. ANTHONY. On how many enlisted men have you based this estimate?

Secretary BAKER. On 280,000 approximately.

Mr. ANTHONY. The full number allowed by the reorganization act?

Secretary BAKER. The definite number fixed by the reorganization act.

Mr. ANTHONY. And you felt that there was a necessity to recruit the Army up to the full number authorized by the law?

Secretary BAKER. I think there is no option given to anybody: I think the law does not give an option, as we used to have, but it fixes a definite number and, in my judgment, does it wisely.

Mr. ANTHONY. Mr. Secretary, I do not care to go over the same ground that you covered the other day in a hearing before the Committee on Military Affairs in reference to this matter, but for the purpose of preparing a record for the information of the House in connection with this bill, I want to ask you this question: You will recall, Mr. Secretary, that last year's appropriation bill appropriated for an army of 175,000 enlisted men, which, in the judgment of Congress, was the proper size of the Army for that year. You have recruited the Army in numbers in excess of that.

Secretary BAKER. It is 208,000 at the present time; but I would like to make this comment on your question, which has in it two assumptions to which I feel obliged to dissent. In the first place, Congress did not appropriate for an Army of 175,000 enlisted men. The appropriation made by Congress was for a less number than that: I should say it would not be more than adequate for 160,000 men, and that was pointed out in the debate in the Senate by Senator Wadsworth.

Mr. ANTHONY. Yet, in going over the hearings on the basis of which last year's bill was prepared, you will find that the Committee on Military Affairs of the House requested Gen. Lord to base his estimate for the pay of the Army on 175,000 enlisted men, and all through the hearings you will find that was the basis on which the committee proceeded with its preparation of the bill, and when votes were taken in the House upon the question of the size of the Army, 175,000, if I remember correctly, was fixed by the House as its desire in that regard.

Secretary BAKER. I did not know that, and I did not know until now that there were definite votes on that subject.

COST OF THE ARMY IN 1921.

Mr. ANTHONY. How large are the deficiencies which have come in above the amount appropriated in last year's Army appropriation bill?

Secretary BAKER. I can not answer that definitely. Gen. March can probably give you better data about that than I can. He and I have stricken out a large number of items and sent other items back for a restudy, with a view to using the surplus on hand rather than purchasing additional equipment, and it is our hope to be able to get it down to sixty or seventy million dollars.

Mr. ANTHONY. That would make the total cost of the Army for the current year, the amount of the present appropriation of \$385,000,000, and you say about \$60,000,000 in deficiencies will come in, which will make the total of approximately \$445,000,000 expended on the army during the current year. Your estimates call for how much?

ESTIMATES FOR 1922.

(See p. 22.)

Secretary BAKER. I have not the exact figures in my mind.

Gen. MARCH. It is \$618,000,000.

Mr. ANTHONY. How do you account for that increase in the amount?

Secretary BAKER. I ought not to speculate about it. Perhaps Gen. March can give that to you better than I. I assume it is due to the fact that we will have consumed more of our surplus.

Mr. ANTHONY. The total amount is \$692,000,000, is it not?

Gen. MARCH. That includes the amount for the National Guard.

Mr. ANTHONY. I am referring to the entire bill, the entire amount.

Gen. MARCH. That runs to about \$690,000,000.

Mr. Sisson. It is \$692,000,000.

Secretary BAKER. That is undoubtedly due to two or three causes. In the first place, I presume, it is thought that the Army will at that time have been recruited to the required strength; and second, that the large surplus accumulations of the War Department for the support of the Army will have been consumed and it will be necessary to lay in by annual purchases the necessary supplies.

REDUCTION IN ESTIMATES FOR 1922.

Mr. ANTHONY. Mr. Secretary, as you know, with the necessity for the exercise of the closest economy in making up our appropriation bills this year, and especially in connection with this Army bill, it is desirable to pare it down to as close a point as possible without injury to the backbone of the Military Establishment. Can you give us any suggestions as to where we could start in to make savings over the estimates which have been submitted by the War Department?

Secretary BAKER. I will be glad to consider it, Mr. Chairman, from that point of view to see whether we can make any suggestion along that line. I have none in my mind at the present moment, for the reason that when the suggestions for estimates came in from the several bureaus and divisions of the Army they aggregated a vastly greater sum than this which now appears in the tentative draft of the bill.

Mr. ANTHONY. It is really dependent upon the mathematical proposition as to the number of enlisted men, is it not?

Secretary BAKER. In large part, yes.

Mr. ANTHONY. Do you think we can safely accept the figure of \$2,000 as the cost of maintaining an enlisted man for a year?

Secretary BAKER. That is a safe aggregate; it is a safe average that can be assumed. I ought to say, however, Mr. Anthony, with regard to another branch of your question a moment ago, on which I asked permission to make comment, that what Gen. Lord did last year when the Committee on Military Affairs was considering the Army reorganization bill was, at the request of the committee, to make three estimates, one based on 175,000 men, another based on an Army of 225,000 men, and a third one, as I recall it, based on an Army of 250,000 men, so that the Committee on Military Affairs had before it four estimates, the three estimates for the three figures I have mentioned, and one for the full strength of the Army required

by the reorganization act. Those estimates were asked for, as I have always understood, upon the belief of the committee that recruiting would not bring the Army above some one of those figures. So that the estimates made by Gen. Lord were not made by the direction of the War Department, and they did not indicate the department's desire or its opinion as to the interpretation of its duties under the act, but were made to respond to a forecast on the part of the committee and the department together as to the number to which the probable recruitment would bring the enlisted strength.

Mr. ANTHONY. It is manifest, Mr. Secretary, that we have got to make considerable reductions in these amounts, and if we can get that information from the department we would like to have it—as to where we can dig in without the least injury to the military department.

Secretary BAKER. I think, Mr. Anthony, I ought to say that while I am deeply sympathetic with the feeling on the part of Congress that rigid economy in governmental expenditures ought to be made, and I am the more sympathetic with it because I realize that the appropriations which you are now considering are to be administered by my successor, so that I have no pride of opinion and no policy of my own about the Military Establishment, because this responsibility will rest on other Secretaries, still I do think that this committee will have or should have in mind two things—first, the profoundly unsettled condition of the world's affairs and, second, the experience which this war has given us as to what we must have in order to have an Army that is itself worth anything. And on those two things I would like to say just a word.

Mr. Sisson. Keeping that constantly in mind, Mr. Secretary, if we have anything like a budget system, so that the expenditures of Government and fixed charges against the Treasury Department that can not be reduced, we must, of course, exercise the best judgment of those in charge of the Army as to where they might pare the appropriations within the estimated amount that may be decided upon for the kind of Army that we will have and distribute it in the bill so as to do the very least possible damage, and that being true the committee, rather than slicing the amount of the estimates with a broadax, would rather have some intelligent information from the War Department, and irrespective of how much you may desire not to have it cut the paring should be done as scientifically as possible, and that must be done with the aid of those in charge.

Secretary BAKER. I will be very glad to go over the bill and go over the surplus stock that the Army has on hand to see whether for the next year or two it will be possible to consume our reserve stocks rather than replenish them and so cut down some of the items for supply on the theory that in two or three years the national finances will have restored themselves so as to enable us with a more comfortable feeling to make these larger expenditures.

Mr. ANTHONY. In preparing these estimates in reference to the National Guard, have you provided for the issue of supplies and equipment to them, and that that equipment shall be new equipment?

Secretary BAKER. That does not come in this bill. The artillery we have issued to the National Guard is all issued through the fortifications bill.

Mr. ANTHONY. Do you anticipate in this year's estimates asking for new appropriations for that material?

Secretary BAKER. I think not; but I am not certain about that.

Mr. ANTHONY. Last year you did ask for the money for the construction and purchase of entirely new material instead of taking it out of the reserve stocks?

Secretary BAKER. That may be; I have forgotten that.

Mr. ANTHONY. Let me ask you another question. How do you propose to distribute our Army during the coming fiscal year? Say, you have 283,000 men; where are you going to use that number of men and where are you going to put them?

Secretary BAKER. Do you mean where are we going to use them, or where are we going to keep them?

Mr. ANTHONY. What use is there for that number of men?

Secretary BAKER. There is never any use for an army unless there is trouble.

Mr. ANTHONY. From the standpoint of the necessary number of men to garrison the outlying possessions and provide training facilities, how many men are absolutely necessary to keep the Military Establishment going in time of peace?

Secretary BAKER. I have not any idea.

Mr. ANTHONY. From whom can we get that information?

Secretary BAKER. I do not think that anybody could possibly say. It depends upon its general purposes. The Army is organized as a nucleus upon which a national mobilization can take place. If you ask my opinion as to what nucleus we would need for a national mobilization, if we were called upon to make a national mobilization in case of emergency, I should say the number of men provided in the Army reorganization act was a conservative minimum.

TROOPS IN GERMANY.

(See p. 17.)

Mr. ANTHONY. How long do you intend to maintain a division in Germany?

Secretary BAKER. Of course, I can not answer that.

Mr. ANTHONY. You must have some definite plan.

Secretary BAKER. So far as I am personally concerned I know of no intention to withdraw our force there until peace is determined between Germany and the United States.

Mr. ANTHONY. When peace is declared it would be natural to suppose that that division would return to this country.

Secretary BAKER. Unless the terms of peace impose obligations on the enforcement of the peace which required the retention of the military force there, which, of course, is exactly what the treaty of peace between France and Germany and the treaty of peace between England and Germany have imposed upon them.

Mr. ANTHONY. How long did the treaty of Versailles contemplate that we should maintain that division?

Secretary BAKER. I have forgotten; I do not think for any definite time. I think it is until certain things are performed by Germany.

Mr. ANTHONY. Rather indefinite.

Secretary BAKER. Yes.

Mr. CRAMTON. It was about a minimum of five or six or seven years, was it not?

Secretary BAKER. I do not recall.

Gen. MARCH. There was a fixed time that we were to stay there, and there was also a fixed time that England and France were to stay there. The periods were 5, 10, and 15 years, and I think our time was 10 years.

Mr. ANTHONY. What is that division in Germany costing us now?

Secretary BAKER. The Germans are paying for it.

Mr. ANTHONY. Are they paying the actual cost of maintaining the division, or are they paying a fixed amount?

Secretary BAKER. They are paying the bills as we render them.

Mr. ANTHONY. It has been reported to me that they are paying a fixed amount in deteriorated marks. Do they just continue to pay a certain number of marks, or are they paying the actual cost in dollars and cents?

Secretary BAKER. The last check I saw was in dollars and cents, but I confess I do not know whether it had been transformed from marks.

Mr. Sisson. That is of sufficient importance to ascertain that fact and put a definite statement about it in the record.

Secretary BAKER. I will be glad to do that.

(See Gen. Lord's statement on pay of the Army.)

Mr. SLEMP. Are these American soldiers in Germany under treaty obligations?

Secretary BAKER. No.

Mr. SLEMP. On what authority do we keep them there?

Secretary BAKER. They are there under the terms of the armistice.

ORGANIZATION OF THE ARMY.

(See pp. 16, 18.)

Mr. ANTHONY. Now, Mr. Secretary, I want to ask you a question about the present disposition of the Army.

Secretary BAKER. Gen. March doubtless has the figures about that and knows the intentions of the department in detail in regard to that. I have it in my head as a general policy. I can say in a sentence that the policy of the department as laid down in the act is to divide, as we divided it, the United States into nine corps areas and to have the troops distributed through those areas, so that they may both occupy the permanent Military Establishments of the Government and safeguard them and care for them, and also conduct the training operations both of the Regular Army itself and of the National Guard and of the Organized Reserve.

Mr. ANTHONY. You have nine division centers?

Secretary BAKER. Nine corps areas.

Mr. ANTHONY. At each of which you have stationed a skeletonized division of troops?

Secretary BAKER. Substantially that.

Mr. ANTHONY. Can you tell me how many there are in those areas at this time?

Secretary BAKER. I can put that in the record. There is not a full division in any one except in the Southern Department.

Mr. ANTHONY. I would like to get those figures.

Secretary BAKER. They can be put into the hearing.

Mr. Sisson. There is no reason why the location of these areas should not go into the record?

Secretary BAKER. None in the world.

Mr. Sisson. And there is no reason why the number of men stationed in each of the nine corps areas should not go into the record?

Secretary BAKER. None at all.

Mr. Sisson. And the reason why you have divided the country into nine areas.

Secretary BAKER. The act requires that to be done. Do you mean the reason for making the districts as they have been made?

Mr. Sisson. In other words, sometimes you go into Army details which you do not like a possible enemy to know about.

Secretary BAKER. There is nothing of that kind in this connection.

Mr. Sisson. Where are the nine districts?

Secretary BAKER. Gen. March has the maps and he can show those to you.

(The statement referred to is as follows:)

Posts and cantonments by corps areas.

	Contem- plated strength, officers and men.	Strength Nov. 30, 1920, officers and men.
FIRST CORPS AREA.		
States: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut.		
Headquarters, Boston, Mass.		283
Seasonal Camp: Camp Devens, Mass.—Ninth Division to be organized here upon return of troops from Germany	11,461	1,511
Present garrison: Thirteenth and Thirty-sixth Infantry and auxiliary troops.		
Other troops:		
Fort Ethan Allen, Vt., 2 squadrons and machine-gun troop, Third Cavalry		777
Coast defenses of Boston, Long Island Sound, Narragansett Bay, New Bedford, Portland, and Portsmouth		3,288
Springfield Armory, Mass. (Ordnance detachments)		94
Watertown Arsenal, Mass. (Ordnance detachments)		142
SECOND CORPS AREA.		
States: New York, New Jersey, Delaware.		
Headquarters, Governors Island, N. Y.		192
Seasonal camp, Camp Dix, N. J.; garrison, First Division	11,461	9,724
Other troops:		
Fort Jay, N. Y., headquarters and 1 battalion, Twenty-second Infantry, United States Disciplinary Barracks		734
Madison Barracks, N. Y., headquarters and 1 battalion, Sixty-third Infantry		403
Mitchel Field, N. Y., 2 aero squadrons		500
Fort Niagara, N. Y., 1 battalion, Twenty-second Infantry		355
Fort Ontario, N. Y., 1 battalion, Sixty-third Infantry		332
Plattsburg Barracks, N. Y., 1 battalion, Sixty-third Infantry		324
Fort Porter, N. Y., 1 battalion, Twenty-second Infantry		307
Fort Wood, N. Y., Signal Corps supply depot		256
Coast defenses of Delaware, eastern New York, Sandy Hook, southern New York		2,062
West Point, N. Y., United States Military Academy (exclusive of cadets)		1,244
Fort Sherm, N. Y., recruit depot		3,526
Leitchurst, N. J., C. W. S. proving ground		383
Camp Alfred Vail, N. J., Signal Corps school		1,130
Hoboken, N. J. (embarkation port)		282
Fort Monmouth Arsenal, N. J. (Ordnance detachments)		396
Camp Upton, N. Y. (being abandoned)		292
Warrenton Arsenal, N. Y. (Ordnance detachments)		73
THIRD CORPS AREA.		
States: Pennsylvania, Maryland, Virginia, and District of Columbia.		
Headquarters, Fort Howard, Md.		256
Seasonal Camp, Camp Meade, Md.; garrison: Tenth Division (ordered)	11,461	
Fort Detrick, Md., headquarters and 1 battalion, Forty-first Infantry; Tank Corps		3,392

Posts and cantonments by corps areas—Continued.

	Contem- plated strength, officers and men	Strength Nov. 30, 1920, officers and men
THIRD CORPS AREA—continued.		
Other troops:		
Aberdeen Proving Ground, Md., Ordnance school details; Ordnance and Signal troops.....		504
Frankford Arsenal, Pa., Ordnance detachments.....		87
Carlisle Barracks, Pa., Field Service School, medical department.....		525
Camp Humphreys, Va., Engineer school.....		822
Langley Field, Va., 2 aero squadrons; 1 airship company.....		107
Norfolk, Va. (supply base).....		229
Camp Lee, Va., Forty-third Infantry; Sixty-second Infantry.....		1,218
Camp Lee Hall, Va., 6 balloon companies.....		311
Fort Myer, Va., 1 battalion Nineteenth Field Artillery; headquarters and 1 squadron of Third Cavalry.....		1,100
Army Medical School, District of Columbia.....		378
Fort Monroe, Va., Coast Artillery school.....		522
Pig Point, Va., Ordnance detachments.....		78
Camp Eustis, Va., Motorized Coast Artillery; training center Thirtieth Brigade, Coast Artillery Corps.....		1,700
Coast defenses of Baltimore, Chesapeake Bay, and Potomac.....		871
Camp Holabird, Md., Motor transport school.....		1,330
East Potomac Park, D. C. (temporary).....		28
Bolling Field, D. C., 2 aero squadrons.....		217
Walter Reed Hospital.....		1,805
Edge wood, Md., C. W. S. school; First Gas Regiment.....		1,025
Front Royal, Va., remount depot.....		66
Washington Barracks, D. C., General Staff College.....		369
FOURTH CORPS AREA.		
States: North Carolina, South Carolina, Georgia, Florida, Alabama, Tennessee, Mississippi, Louisiana.		
Headquarters, Fort McPherson, Ga.....		722
Divisional camp, Camp Jackson, S. C.; garrison, Fifth Division, Thirty-ninth Brigade, Coast Artillery Corps.....	11,461	6,827
Other troops:		
Camp Benning, Ga., Infantry school and training center, Twenty-ninth Infantry and school troops.....		1,112
Camp Bragg, N. C., Field Artillery school and training center; Fifth and Twenty-first Field Artillery and school troops.....		1,031
Carlstrom Field, Fla., Air Service pilots' school.....		65
Camp Gordon, Ga. (to be abandoned).....		27
Fort Oglethorpe, Ga., Sixth Cavalry.....		1,226
Park Field, Tenn., detachments from Air Service.....		3
Coast defenses of Cape Fear, Charleston, Key West, Mobile, New Orleans, Pensacola, Savannah, and Tampa.....		1,807
Camp Jesup, Ga., Motor Transport school and depot.....		87
Souther Field, Ga., Air Service detachments.....		61
Augusta Arsenal, Ga., Ordnance detachments.....		2
Charleston, S. C., supply base.....		2
Army and Navy General Hospital, Arkansas.....		14
Montgomery, Ala. (Air Service repair depot).....		22
FIFTH CORPS AREA.		
States: Ohio, West Virginia, Indiana, Kentucky		
Headquarters, Fort Benjamin Harrison, Ind.....		51
Divisional camp, Camp Sherman, Ohio; garrison, Second, Third, Tenth, Nineteenth and Fortieth Infantry; Fifth Division to be organized here with above troops as nucleus.....	11,461	6,827
Other troops:		
Columbus Barracks, Ohio, recruit depot.....		1,025
Camp Knox, Ky., Field Artillery school; Second, Eighty-first, and Eighty-third Field Artillery.....		92
Wilbur Wright Field, Ohio, detachments from Air Service.....		46
McCook Field, Ohio, detachments from Air Service.....		5
Fort Thomas, Ky., recruit depot.....		5
Eric Proving Ground, Ohio, Ordnance detachment.....		7
Jeffersonville, Ind., general supply depot.....		6
Camp Taylor, Ky., being abandoned.....		1
SIXTH CORPS AREA.		
States: Illinois, Michigan, Wisconsin		
Headquarters, Fort Sheridan, Ill.....		86
Divisional camp, Camp Grant, Ill.; garrison, Sixth Division.....	11,081	7,79
Other troops:		
Fort Gray, Mich., 1 battalion, Thirty-seventh Infantry.....		10
Fort Wayne, Mich., Headquarters and 2 battalions, Tenth Infantry.....		2

Posts and cantonments by corps areas—Continued.

	Contem- plated strength, officers and men	Strength Nov. 30, 1920, officers and men.
SIXTH CORPS AREA—continued.		
<i>Other troops—Continued.</i>		
Scott Field, Ill., detachments from Air Service.....		14
Chanute Field, Ill., Air Service mechanics school (moving).....		953
Selfridge Field, Mich., detachments from Air Service.....		9
Chicago, Ill., general supply depot.....		246
Camp Custer, Mich. (being abandoned).....		290
Rock Island Arsenal, Ill. (ordnance detachments).....		76
SEVENTH CORPS AREA.		
States: Arkansas, Missouri, Kansas, Iowa, Nebraska, Minnesota, North Dakota, South Dakota.		
Headquarters, Fort Crook, Nebr.....		337
Expedition camp, Camp Pike, Ark.; garrison, Third Division.....	11,461	5,305
<i>Other troops:</i>		
Fort Des Moines, Iowa, Fourteenth Cavalry.....		782
Fort Riley, Kans.—Cavalry school and training center; Second Cavalry and school troops.....		2,011
Fort Leavenworth, Kans.—General service schools and Disciplinary Barracks; 1 battalion, Forty-ninth Infantry.....		1,546
Fort Meade, S. Dak.—Detachments.....		10
Fort Omaha, Nebr.—4 Balloon Companies.....		277
Fort Robinson, Nebr.—Remount Depot.....		53
Fort Snelling, Minn.—Headquarters and 2 battalions, Forty-ninth Infantry.....		637
Fort Lincoln, N. Dak.—Caretakers.....		
Fort Logan H. Roots, Ark.—Detachments.....		28
Jefferson Barracks, Mo.—Recruit Depot.....		1,379
Camp Dodge, Iowa—(Being abandoned).....		429
Camp Funston, Kans.—(Ordered abandoned).....		3,443
EIGHTH CORPS AREA.		
States: Texas, Oklahoma, Colorado, New Mexico, Arizona.		
Headquarters, Fort Sam Houston, Tex.....		591
Expedition camp, Camp Travis, Tex.; garrison, Second Division (expeditionary)....	19,385	8,799
<i>Other troops:</i>		
Fort Bliss, Tex.—Eighth Cavalry; Eighth Airship Company and One hundred and fourth Aero Squadron; Seventh Cavalry; Eighty-second Field Artillery; Eighth Battalion Engineers and auxiliary troops.....		5,244
Fort Brown, Tex., and vicinity—Fourth Cavalry; Eighth Aero Squadron; aux- iliary troops.....		1,501
Del Rio, Tex., and vicinity—Twelfth Cavalry; Ninetieth Aero Squadron; auxil- iary troops.....		944
Eagle Pass, Tex., and vicinity—Forty-sixth Infantry (less Second Battalion)....		581
Camp Furlong, N. Mex., and vicinity—Twenty-fourth Infantry.....		2,325
Fort Huachuca, Ariz., and vicinity—Tenth Cavalry.....		1,211
Camp Harry J. Jones, Ariz., and vicinity—Twelfth Aero Squadron; First Cav- alry; Forty-eighth Infantry.....		1,582
Camp Stephen D. Little, Ariz., and vicinity—Twenty-fifth Infantry.....		1,877
Fort McIntosh, Tex., and vicinity—Seventeenth Infantry.....		896
Marfa, Tex., and vicinity—Fifth Cavalry; auxiliary troops.....		1,255
Fort Ringgold, Tex., and vicinity—1 squadron Thirteenth Cavalry; auxiliary troops.....		297
Brooks Field, Tex., Airship School—Sixteenth Airship Company; five Balloon companies.....		431
Fort Clark, Tex.—Thirteenth Cavalry (less 1 squadron).....		865
Fort Sam Houston, Tex.—Sixteenth Cavalry; one battalion Forty-sixth Infantry.....		2,559
Kelly Field, Tex.—Eight aero squadrons.....		1,102
Fort Logan, Colo.—Recruit depot.....		874
Fort Field, Okla.—Air Service Observation School—One aero squadron.....		240
Fort Sill, Okla.—Field Artillery School. First, Ninth and Fourteenth Fieldartil- lery.....		2,743
Camp Stanley, Tex.—Fourth Field Artillery.....		911
Coast defenses of Galveston, Tex.....		204
Whipple Barracks, Ariz.—Public Health Service.		
Fort Bayard, N. Mex.—Public Health Service.		
Edlington Field, Tex.—Air Service Bombardment School.....		24
Love Field, Tex.—Detachments Air Service.....		85
Camp Normoyle, Tex.—Motor Transport depot and school.....		840
Fort Reno, Okla.—Remount depot.....		94
Rich Field, Tex.—Air Service detachments.....		23
Fort Apache, Ariz.—One troop First Cavalry and detachments.....		127
Camp Boyd, Tex.—Motor Transport depot and school.....		484
Fitzsimons General Hospital, Colo.....		873
Fort Wingate, N. Mex.—Ordnance storage depot.....		5

Posts and cantonments by corps areas—Continued.

	Contem- plated strength, officers and men	Strength No. 30, 1920, officers and men.
NINTH CORPS AREA.		
States: Washington, Oregon, Idaho, Montana, Wyoming, Utah, Nevada, Cali- fornia.		
Headquarters, Presidio of San Francisco, Calif.....		680
Divisional camp, Camp Lewis, Wash.: garrison, Fourth Division, Thirty-ninth Brigade, Coast Artillery Corps.....	11,461	6,120
Other troops:		
Alcatraz Island, Calif., disciplinary barracks.....		201
Camp John H. Beacon, Calif., one troop Eleventh Cavalry.....		95
Campo, Calif., one troop Eleventh Cavalry.....		100
Crissy Field, Calif., detachment Air Service.....		100
Fort Douglas, Utah, First Battalion Twenty-first Infantry.....		225
Fort Keogh, Mont., remount depot.....		25
Fort Lawton, Wash., two companies Thirty-second Infantry.....		221
Fort McDowell, Calif., recruit depot.....		1,119
March Field, Calif., Air Service pilot school.....		72
Mather Field, Calif., First and Ninety-first Aero Squadrons.....		0
Presidio of Monterey, Calif., Eleventh Cavalry (less two troops).....		1,101
Presidio of San Francisco, Calif., Thirty-second Infantry (less two battalions).....		2,103
Rockwell Field, Calif. (flying field).....		192
Ross Field, Calif., balloon school, five balloon companies.....		50
Fort D. A. Russell, Wyo., Fifteenth Cavalry.....		240
Vancouver Barracks, Wash., Thirty-second Infantry (less seven companies).....		671
Fort George Wright, Wash., Twenty-first Infantry (less five companies).....		188
Yuma, Ariz., one company Thirty-second Infantry.....		80
Coast defenses of Columbia, Los Angeles, Puget Sound, San Diego, and San Fran- cisco.....		1,270
Benicia Arsenal, Calif., Ordnance detachments.....		90
Camp Kearny, Calif. (being abandoned).....		132
Letterman General Hospital, Calif.....		672
Fort Mackenzie, Wyo., caretakers.		
Fort Missoula, Mont., caretakers.		
Fort Walla Walla, Wash., caretakers.		
Boise Barracks, Idaho, Public Health Service.		
Fort William Henry Harrison, Mont., Public Health Service.		

Summary.

First Corps Area.....	6,095	Philippines (including Philip- pine Scouts).....	18,826
Second Corps Area.....	22,515	Germany.....	15,364
Third Corps Area.....	17,970	Hawaii.....	7,131
Fourth Corps Area.....	18,655	Panama.....	5,978
Fifth Corps Area.....	9,762	Porto Rico.....	1,875
Sixth Corps Area.....	10,830	China.....	1,308
Seventh Corps Area.....	16,237	Alaska.....	844
Elghth Corps Area.....	39,587	France and England.....	10,000
Ninth Corps Area.....	20,445	At sea.....	117
On college, militia, and re- cruiting duty, detached service, leave, etc.....	8,091	Aggregate (officers, 13,461; enlisted, 208,364).....	221,825
Total in United States..	170,187		

SIZE OF THE ARMY.

(See p. 3.)

Mr. CRAMTON. Mr. Secretary, I understand there is a difference of opinion between the various authorities as to that provision in the Army reorganization act for an Army of 283,000 men, as to whether that is an optional figure or a fixed number, whether it is a maximum or a fixed provision. I also understand from the Secretary's statement just now that you feel, Mr. Secretary, that even if

it is an optional figure, simply a maximum, you believe that the Army should be recruited at once to that full strength and maintained at that full strength of 283,000 men.

Secretary BAKER. Mr. Cramton, I testified very fully on that subject before the House Committee on Military Affairs a few days ago and I understand from the chairman that he does not want to repeat in this record what was in that; but I think I can say——

Mr. ANTHONY. You might tell us about that just in a general way.

Mr. CRAMTON. Unless those hearings will be available to us. If the law did fix 283,000 men as a maximum, this committee would have discretion, and therefore we ought to have some statement here as to why we need such a large Army at this time.

Secretary BAKER. I think I can make a statement in two or three sentences that will cover the point.

Mr. CRAMTON. Keeping in mind that this committee, in large part, were not present at the other hearings. If we do have discretion, we would like to have something on which to act.

Secretary BAKER. I must ask your indulgence for a historical statement of a sentence or two. The War Department recommended to Congress an army of 580,000 men. We had very long hearings before both the House and Senate Committees on Military Affairs. The major part of those hearings was devoted to trying to gather the lessons of this war as a basis for Army reorganization.

It will be discovered by an inspection that what was in everybody's mind was the fact that under modern war conditions the tactical unit of a modern army was a division; that when wars happen under modern conditions they happen swiftly and on a great scale, and it was thought there ought, therefore, to be a nucleus army which would not be so large as to suggest any anxiety on the part of the United States and really not be related to any possibilities of outside disturbance, because everybody recognized the peaceful intentions of the United States. But an army so organized and so manned as would not only be able to train the ordinary soldier in the coordinations of our various arms which are necessary in modern war, but it would also be able to train the higher command, the discovery of this war being, so far as we are concerned, that the difficulty in the formation and use of an army does not lie in getting the men and teaching them how to live as soldiers, but in getting the experience in the higher command which is necessary to manage and coordinate the activities of great masses of men.

It was thought that the divisional unit was the tactical unit which should be considered and that in any reorganization we ought to have enough men practically to have one complete organization, a field army which would be divided, apart from the men doing custodial duty and things of that sort, into divisions, those divisions grouped into corps, and those corps, theoretically—this step has not been actually taken—grouped into a field army, so that if an emergency should occur which requires a national military mobilization we would have the foundation on which to build a thing of that kind, which we would only have to multiply and not to modify.

Mr. CRAMTON. Then, as I understand it, the great lesson of this war is that conditions have so changed that the great problem in preparing for possibilities is not so much the training of the men, because the old evolutions are not so important, the training of the

men to shoot and to march, but the training of officers, particularly officers in high command?

Secretary BAKER. The basis of the military art remains the same. It is now to be seen through a magnifying glass. That is the practical answer to your question. Before we went into the war there was not a single general officer who had ever seen a division of American troops together at one time.

Mr. Sisson. That is not a bad thing; that is a pretty good condition of affairs, it seems to me. I hope the world will never see one together again.

Secretary BAKER. I share your hope.

Mr. Cramton. But the purpose of the large army is not so much the securing of trained men as the securing of trained officers?

Secretary BAKER. It is the securing of trained men for the purpose of training the officers in the management and handling of large bodies of men.

Mr. Cramton. Hence the army is for the training of officers?

Secretary BAKER. And officers exist for the training of the army; it is reciprocal.

Mr. Cramton. Without caring to go into it at length, I would like to ask this one question as to your opinion, Mr. Secretary, of the desirability of this country, which stands preeminently for peace, for disarmament, when the question of disarmament is so much before the world—as to the advisability of this country, with a large reserve of trained men, setting the example of more than doubling its military organization?

Secretary BAKER. I can not answer your question in that form; not because I want to fence about it at all, but because any proposition of mere doubling depends on where you start.

Mr. Cramton. Then let us say largely increasing.

Secretary BAKER. I believe the United States ought to lead the world in the matter of disarmament and in practical manifestations of its peaceful intentions, and its belief that the controversies of the world ought to be peacefully adjusted. And I believe that not only because our political philosophy goes that way, but because our relative isolation makes it possible for us to be a world leader in that regard, and so I should discourage and regret any military program in the United States that could be fairly construed as in opposition to any such policy.

The question of increasing the size of the army is related to that only in this way. If we have any army it ought to be a perfect army; that is to say, it ought to be a useful army, one that can be multiplied without modification, and a minimum number that will give such an army as that is the size army we ought to have.

Mr. Sisson. How many men constitute a division?

Secretary BAKER. The reorganized division, as we have laid it out since the war, is about 19,000 officers and men, war strength, and about 11,000, peace strength.

Mr. Sisson. The divisions in the fighting units in France went up as high as 200,000, did they not?

Secretary BAKER. No; the largest division in France was about 26,000 men.

Mr. Sisson. What is the organization that had 250,000 men in it?

Secretary BAKER. That was probably a corps.

Mr. Sisson. And 19,000 men form a division?

Secretary BAKER. An infantry division.

Mr. Sisson. The 283,000 men provided for in the reorganization act would give about the number of men that would be under one officer whatever might be the conditions in the war of the future? About that number of men is the number of men that one officer is supposed to control?

Secretary BAKER. No; Gen. Pershing had 2,000,000 men.

Mr. Sisson. But he had under him certain subdivisions.

Secretary BAKER. He had his army divided into armies; he had finally three armies, the First, the Second, and the Third Army, and each of those had in it, sometimes two, sometimes three, and sometimes four corps, and those corps were divided into divisions.

Mr. Sisson. Why then do you arbitrarily fix the minimum at 283,000 men?

Secretary BAKER. I did not fix it; you fixed it—that is, Congress fixed it.

Mr. Sisson. I suppose it was fixed upon the testimony of somebody.

Secretary BAKER. It was the result of the testimony of a great many people. The expert opinion of the War Department, to start with, was that 580,000 men were necessary.

Mr. Sisson. I thought your explanation to Mr. Cramton was that you thought that 283,000 was the minimum and that you were endeavoring to give your reason for it.

Secretary BAKER. I was stating that Congress having fixed the number it seemed to be a minimum to accomplish the purposes of the reorganization act.

Mr. Sisson. Why?

Secretary BAKER. I can not give you a reason, if you mean the difference between 280,000 and 279,000 men.

Mr. Sisson. I had this in mind, that in training an officer you want to give him a full maximum company and have a certain number of men to train men in large numbers. If you have to have an Army of such a size to do that, to carry it to its logical conclusion we would have to have the biggest possible Army we would ever need in war.

Secretary BAKER. I do not think so.

Mr. Sisson. Therefore it must be a somewhat arbitrary number, 280,000 men, to constitute a division, so we would have but three or four divisions in time of peace. So you have a skeleton number of officers for the purpose of fitting your Army as thoroughly and as quickly as possible in time of war.

Secretary BAKER. If you will have in mind the details of the reorganization act you will find that 280,000 is not a number that will be gathered in some one place and maneuvered by some one officer. A very substantial number of those men are Coast Artillery men, for the purpose of manning and keeping in repair the coast defenses.

Mr. SLEMP. About 30,000?

Secretary BAKER. Some such number; it may be more—I think it slightly more. A substantial number of them are Signal Corps men; a substantial number of them are cavalrymen, and each arm of the service is given its proportion of the men. The divisions which they have in normal peace-time garrison duty absorb a substantial number of the 280,000. In addition to that, the act contem-

plates that the Regular Army shall do the training not only of itself but of the National Guard of the several States and the Organized Reserve, and that the country shall be divided up into corps areas each of which will have in it at least one division of the National Guard or the Organized Reserve, and such other troops as the President may direct. When we divide the country into nine corps areas with a commander for each, the plan is to put a division of Regular troops in each corps area.

Mr. SLEMP. Then there would be nine divisions for that service?

Secretary BAKER. It would take nine for that, and then the outlying possessions will have divisions.

ORGANIZATION OF THE ARMY.

(See pp. 8, 18.)

Mr. ANTHONY. Is it absolutely necessary to maintain those nine divisions recruited to their full strength? Would it not be sufficient to have one or two divisions recruited to full strength?

Secretary BAKER. One or two divisions would be better trained than the rest of them, and if you want to have two well-trained divisions and the rest skeletonized your theory will accomplish it. The War Department plans, in fact contemplates, that only one of these nine divisions shall be maintained at full strength; the other eight divisions will be maintained at peace strength, or about 60 per cent of the full strength.

Mr. ANTHONY. Can you not train your officers with those divisions?

Secretary BAKER. I think not, unless the nine divisions are maintained at least at the strength just mentioned. I think the fatal mistake that we have made prior to this war has been to think, for instance, that a captain who had had command of a hundred men was really equal to commanding a company of 250 men; that a colonel who had been in charge of about 1,000 men was fitted to immediately take charge of and command 3,000 or 3,500 men in a regiment, and that a man who had studied in the staff college how to coordinate the staff work of a division could step out of his school room and go at once at the head of a division of 20,000 or 25,000 men and make the coordinations necessary.

The officers would be trained best, of course, if we could maintain all of the divisions at full war strength. The number of men authorized by Congress, however, is not sufficiently large to permit all nine of them to be maintained at full strength, and so we have done what seems to be the most reasonable thing. We have provided for a distribution of the available men so that when the Army is fully recruited one division will be at full war strength. This division will not only be available as an expeditionary force in emergencies, but will serve as an object lesson for the entire Army. It will constitute an agency in which the lessons of the war will be preserved and new methods developed with maximum efficiency. The other eight divisions will be maintained at peace strength, which, as stated before, is only about 60 per cent of the war strength. The organization of the eight divisions is the same type as that of the one war-strength division. It will, therefore, be possible for the various commanders to pursue their training with the same type of component units as

they would command in time of emergency. The strength of the units will be less, necessarily so, because of the limitations in authorized personnel imposed by Congress. I believe that this statement will show that we have adopted a policy of organization which the question implies should be adopted, and that this organization is the best that can be done with the authorized number of enlisted men.

Mr. ANTHONY. As a matter of fact, when you speak of training the Army in divisions, you mean you only want to train them in divisional maneuvers, perhaps, a few weeks out of every year?

Secretary BAKER. In divisional maneuvers, perhaps, but the living together of a division of men in camp is a constant training in divisional coordination.

Mr. CRAMTON. How often do you expect that to happen, that a division will be assembled together in the Regular Army in peace time?

Secretary BAKER. The theory of the reorganization act is that this will be their normal status; that the major part of what we used to call the mobile Army will be assembled in division units and live as divisions.

Mr. CRAMTON. That has not been put into effect as yet?

Secretary BAKER. It is being put into effect and is now in effect with regard to two Regular Army divisions.

Mr. CRAMTON. Where is the largest body of men at the present time?

Secretary BAKER. At Camp Travis; the Second Division.

Mr. CRAMTON. How large a body of men is that?

Secretary BAKER. I imagine they have about 12,000 men there.

Gen. MARCH. We have recently recruited them up to something over 10,000 men.

Mr. CRAMTON. May I ask, when the reorganization is perfected, what proportion of this Army of 283,000 men would ordinarily be assembled in divisional units? Of course, I realize you have had a few at different camps scattered around the country, but what proportion of them would be in these large units so that they would be securing divisional training?

Gen. MARCH. We have now actually, in being, a skeletonized division at each one of the camps in the nine corps areas to which the Secretary has referred, and we would get them, as we recruit the Army up to 280,000 men, up to a peace strength of 11,000 men, except the division at Camp Travis, which is supposed to be an expeditionary force, which we intend to keep at war strength all the time, so if we had to send a force somewhere we would have a division in being, organized for that purpose.

TROOPS IN GERMANY.

(See p. 7.)

In addition to that we have at Panama and Hawaii and in the Philippine Islands and Germany, at Coblenz, either theoretically or practically, a division. Gen. Allen has now at Coblenz, or had when I inspected his command not long ago, about 16,000 officers and men, and that is a very fine, well-organized body of troops, the best

troops along the Rhine, as far as I can judge after inspecting them all. Our scheme for Germany calls for this. We have ordered Gen. Allen—we are not going to send any more replacements there—we have ordered Gen. Allen to return to the United States, as their enlistments expire, the men in his division, and to return to the United States as their tour of foreign service expires the officers in that command, so that that division, by December, 1921, will be down to about 8,000 officers and men.

Mr. CRAMTON. You are not sending replacements there now?

Gen. MARCH. No.

Mr. CRAMTON. That is a new departure, is it not?

Gen. MARCH. It is a new departure. It is a part of the general plan of getting down to 280,000 authorized strength.

Mr. CRAMTON. You have been sending replacements to Germany up to a late date?

Gen. MARCH. Yes; special replacements only, when they needed such men as blacksmiths and artisans.

Mr. SLEMP. Does our obligation under the armistice call for a specific number of men to be there?

Gen. MARCH. No. The force has already been decreased from 225,000 to about 16,000 at the present time, and it will only consist of about 8,000 officers and men by the 31st of December, 1921.

Now, Mr. Chairman, I would like to say something about the matter you referred to in connection with payments. I went into it with Gen. Allen, and he said he had on hand enough marks daily to pay the current expenses of the American troops there. Of course the transportation problem is still on us. Germany will perhaps pay for it in the long run, but the running expenses day by day have been paid for some time and the marks have always been forthcoming.

Mr. ANTHONY. Have the marks been figured at their present market value?

Gen. MARCH. I do not know about that. But there is no trouble about payment; the American troops are paid right along.

Mr. CRAMTON. You mean that at Coblenz the local bills are rendered in marks and paid in marks?

Gen. MARCH. Exactly so.

ORGANIZATION OF THE ARMY.

(See pp. 8, 16.)

Mr. CRAMTON. The great purpose of the force which is recommended by the Secretary is based on the idea that you will have divisional training?

Gen. MARCH. You said "recommended by the Secretary"?

Mr. CRAMTON. In his statement this morning; we will put it this way. I am not trying to get into this other difference of opinion. When you get your 283,000 men and your nine divisions arranged for to what extent will those nine divisions be skeletonized divisions?

Gen. MARCH. We have tables of organization, which can be put into the record, giving every detail of the new Army organization under the act of June 4, 1920. As I said at the start, all those divisions, except the one at Camp Travis, will have approximately 11,000 officers and men, which is the peace strength of a division.

Mr. CRAMTON. So those nine divisions will be skeletonized divisions if you get 283,000 men. What part of the time will those nine divisions be assembled as divisions?

Gen. MARCH. All the time; that is their daily habitat, just as in the old days there was a battalion at a post.

Mr. CRAMTON. So out of 283,000 men you will have something under 100,000 men living in divisional units and being trained in divisional units?

Gen. MARCH. But, as I started to say awhile ago, we also have a divisional organization for the Cavalry arm. The 20,000 Cavalry authorized by the reorganization act we have organized into two Cavalry divisions for service on the border.

Mr. CRAMTON. That will be 2 more, making 11?

Gen. MARCH. Yes. If you add to the troops we have in the nine camps the troops in the outlying possessions you will have before you a bird's-eye view of where these men go. The 283,000 men we have been talking about, and which you have assumed are all fighting men, as a matter of fact, are not. I want to emphasize the fact that the 283,000 include all the men who pertain to the Staff Corps and the supply departments. If you talk in terms of the Infantry arm, just keep this figure in your mind, that the law provides for only 110,000 infantrymen. About the infantrymen are grouped the auxiliary arms like the Field Artillery and other fighting and supply elements which support the Infantry in battle. So when we talk about complete divisions of troops you can think of 110,000 men instead of 283,000 men.

NOTE.—In order to clarify this statement and give a definite picture of how other arms are grouped in the division with the Infantry, I submit herewith a tabulation showing the organization for a division at both peace and war strength.

The Infantry division.

Units.	Peace strength.		War strength.	
	Officers.	Enlisted men.	Officers.	Enlisted men.
Division headquarters.....	37	.....	45	.....
Headquarters detachment.....	4	71	4	108
Headquarters company.....	1	50	2	100
Signal company.....	6	150	6	150
Military police company.....	2	50	5	150
Tank company.....	3	125	4	125
Motor-cycle company.....	1	36	2	54
Ordnance maintenance company.....	3	70	4	75
Infantry brigades (2).....	244	6,484	434	11,472
Artillery brigade (1).....	111	2,150	146	3,138
Engineer regiment.....	29	710	37	806
Air Service.....	33	157	28	189
Medical regiment.....	21	247	54	776
Division trains.....	10	343	19	769
Attached medical, dental, and veterinary officers and chaplains	49	264	91	580
Total for division.....	554	10,907	893	18,492
Aggregate		11,461		19,585

NUMBER OF STAFF AND COMBATANT TROOPS.

Mr. ANTHONY. What is the proportional number of line to staff troops now in service?

Gen. MARCH. We are ahead on the staff troops and behind on the combatant arms. I would have to look up the figures to give you the exact proportions. But roughly we have perhaps 100,000 men belonging to the staff corps and the rest belong to the combat arms.

NUMBER AND LOCATION OF ARMY CAMPS AND CORPS AREAS.

(See p. 25.)

Mr. ANTHONY. What are the nine divisional camps? Can you name them?

Gen. MARCH. Yes; I can. I can show them to you on this map. [Exhibiting map.]

Mr. ANTHONY. I would like to have the names of the nine divisional camps and also the names of other large Army camps or cantonments which the War Department has retained or which are still under the control of the War Department.

Gen. MARCH. The law requires that we divide the United States into corps areas, in each of which there is approximately the same fighting strength, not of the Regular Army but of the civilian population, and we took the figures which the Provost Marshal General used in connection with the draft and found the number of men who were eligible in the entire United States, by sections. In making the division—of course the geographical division is very much different from the population division. The First Corps Area includes the entire New England area. Its training center is at Camp Devens. The Second Corps Area embraces New York, New Jersey, and Delaware, and its training center is at Camp Dix. The Third Corps Area embraces these States [indicating on map]; the Fourth Corps Area embraces these States [indicating on map]; the Fifth Corps Area includes the Indiana and Illinois group; the Sixth Corps Area is here [indicating on map]; the Seventh Corps Area is here [indicating on map]; the Eighth Corps Area is here [indicating on map]; and the Ninth Corps Area is up here [indicating on map], the size of the areas increasing as we go farther west, where the population is more scattered. For each one of the areas we have a plot which will show what that is.

Mr. ANTHONY. Have you any other large Army camp in the first area?

Gen. MARCH. No.

Mr. ANTHONY. Is there any other camp in area No. 2?

Gen. MARCH. No.

Mr. ANTHONY. Is there any other in area No. 3?

Gen. MARCH. There are two in the third area.

Mr. ANTHONY. What are the two?

Gen. MARCH. Camp Meade and Camp Lee; but one is to be abandoned.

Mr. SLEMP. What about Camp Humphreys?

Gen. MARCH. That is an engineer school.

Mr. ANTHONY. In the third area you have two large camps?

Gen. MARCH. Two at present. In the fourth area we have retained Camp Jackson and abandoned Camp Gordon.

Mr. ANTHONY. Does that leave any other camp in the fourth area?

Gen. MARCH. No.

Mr. ANTHONY. How about McClellan?

Gen. MARCH. You mean in the sense of any camps at all——

Mr. ANTHONY (interposing). Yes.

Gen. MARCH. Of course, we have Benning and Bragg; but I thought we were talking about divisional training centers.

Mr. ANTHONY. But I want to try to find out, in addition to the posts where you propose to station these divisional organizations, what other large Army camps or cantonments you have in those areas which you still retain?

Gen. MARCH. In addition to that, we will make a statement which will show not only the camps used for schools, like Benning and Bragg, but we will put in the flying fields that we are retaining. That will be given in detail because it is relatively a large number. In the sixth area we have Camp Grant.

Mr. ANTHONY. Fort Sheridan is the headquarters and Camp Grant is where you have the troops?

Gen. MARCH. Yes. In the seventh area we have Camp Pike, in the eighth area Camp Travis, and in the ninth area, way up in the Northwest, on the Washington coast, we have Camp Lewis.

Mr. ANTHONY. In the seventh area, why did you select Camp Pike as the training center?

Gen. MARCH. The problem came up there as to which was the better for our purpose, the Pike area or the Funston. In making that solution we were confronted by two things. One was to get down to the lowest minimum to save money. The other was to make use of the reservation at Fort Riley. We are increasing the size of the school at Fort Riley, which was used up to the World War as a combined Artillery and Cavalry school. The Artillery school has been transferred to Fort Sill, and we are building up at Fort Riley a Cavalry school which will be four times as large as the one we had before the war. The great number of officers who are coming in from civil life who need training make it necessary that the number of scholars be increased, and that means that the place where they are trained must be enlarged, so that they will have to use the whole reservation for that purpose.

Mr. ANTHONY. Will the Cavalry school need the whole 19,000 acres?

Gen. MARCH. Yes; the Cavalry people out there asked to have the whole reservation turned over to them.

Mr. ANTHONY. How large a reservation have you at Camp Pike which the Government owns?

Gen. MARCH. I could not say offhand. I have inspected that and it is a very fine reservation. That will give you a general idea about the corps area scheme.

In addition to having a regular unit in each one of those corps areas for its own training and the training of the National Guard, the scheme contemplates for each of the corps areas at least one division of National Guard troops and two divisions of Reserve troops—men in the Reserve Corps. So that you have in each one of the corps areas four divisions, theoretically at least, which can be called into the service in time of emergency.

Mr. Sisson. In making these districts you said you took into consideration not the territory but the population.

Gen. MARCH. That is required by the law.

Mr. Sisson. And the idea is that you will get the men as conveniently as possible to the training station?

Secretary BAKER. It is the available military population for immediate, hurried mobilization.

Mr. Sisson. That is, it is convenient to the training station?

Secretary BAKER. Yes.

Mr. Sisson. And the general scheme of national defense is not involved in the making of these corps areas as you have made them, but they were made solely for the purpose of having them convenient to the population to be trained?

Gen. MARCH. No; that corps area scheme is a very vital part of the scheme of national defense. We are going ahead still further in the organization of the corps areas and are drawing up regulations for the governing of the corps area commanders, so that they will be applicable both in war and peace.

Mr. Sisson. You have a very small area in No. 1. Then on the whole Pacific coast you have only one camp.

Gen. MARCH. Yes.

Mr. Sisson. That is to take care of a very large territory. Then in corps area No. 2 you have an area which just defends New Jersey and New York. Is there any reason for that?

Gen. MARCH. Yes.

Mr. ANTHONY. You have arranged them strategically?

Gen. MARCH. Yes.

Mr. ANTHONY. Will you include in connection with each one of these areas the names of the other large camps and cantonments, with the use to which they are now being put, and also indicate whether any of them can be dispensed with, or if you contemplate dispensing with them, with the idea that perhaps we had better dispense with some of them and cut down the overhead?

ESTIMATE FOR 1922.

(See p. 5.)

Gen. MARCH. I would like to say something about that. The Secretary touched on it a little bit in his answer to one of the questions as to where the appropriations can be cut. I want to show you what we have done about this. When we first called upon the supply departments to turn in their estimates we instructed them to base the estimates on the act of June 4, 1920, with the authorized strength of 280,000 men provided for. The estimates which they submitted totaled nearly a billion dollars—\$998,000,000—and I would not even forward those estimates to the Secretary at all. I ordered them to report again, under three headings: First, what was absolutely mandatory to carry on the Army at the full strength; second, what was desirable; and the reply came back to the effect that \$900,000,000 was necessary and that \$35,000,000 was desirable. That did not suit me a bit. It seemed to me those estimates were not fair to us or fair to the Congress, and so I organized a board which went over the estimates and cut them down from \$998,000,000 to \$618,000,000.

Mr. SLEMP. How did you do that?

Gen. MARCH. I did not do that. I gave a mandatory order that nothing would go in over \$600,000,000.

Mr. SLEMP. Why did you not say \$400,000,000?

Gen. MARCH. Because I thought \$600,000,000 was just about right. When we prepared the estimate for an army of 580,000 men it embraced the universal military training scheme, and the cost of maintaining the Army was very carefully worked out at that time and it was about the same as was here proposed by the supply bureaus for the Army of a little less than 300,000 men. I had gone over those figures personally and knew they were right for any army of that size. So I consented to accept a reduction to three-fifths as about right. It is a fair thing for a service to come in and ask for increased appropriations. Take the air service, for instance. They want more planes; they want to expand; and in a very fair appreciation of the responsibility put upon them they asked for more than we recommended. We have really tried to cut this to the bone before submitting it to you. We can not compare this situation with what we used to appropriate before the war with an Army of less than 100,000 men. Simply multiplying by the increased proportion of men would not give you a correct figure at all. We have to do things now that we did not have to do before.

Mr. SLEMP. This estimate of a little over \$600,000,000 is based upon the necessities of an army of 280,000 men?

Gen. MARCH. Yes, it is based upon that.

Mr. CRAMPTON. Supplementing what you said a moment ago in connection with arranging these corps areas, does the plan also include the mobilization of the National Guard at certain periods of the year?

Gen. MARCH. Yes.

Mr. ANTHONY. Would it not be fair to assume that the general estimate you submitted could be considerably reduced in view of the lower cost of subsistence and supplies of all kinds?

Gen. MARCH. I do not think so. That kind of detail you would have to get from the men buying the supplies, to see whether there has been a large reduction in that cost.

Mr. ANTHONY. Tell us how these estimates were prepared. Were they prepared by the chiefs of bureaus responsible for the expenditures in each case?

Gen. MARCH. Yes, sir.

Mr. Sisson. When were they actually prepared, about what date?

Gen. MARCH. The work of preparing the estimates for the War Department takes months.

EFFECT OF REDUCTION IN PRICES ON ESTIMATE.

Mr. Sisson. I understand that. In other words, following the suggestion of the chairman, so that we may ascertain whether there has been a considerable reduction in the various supplies, such as freight, lumber, and material of various kinds, was it two or three months ago when they were completed?

Gen. MARCH. Yes. The estimates have been worked on for a considerable time, but the final estimate which came up to you, which had to be in the hands of the Secretary of the Treasury on October 1, was just about ready to go in at that date.

Mr. Sisson. But the actual physical work in the preparation of the estimates had been going on for a long time?

Gen. MARCH. Yes.

Mr. Sisson. And in making the estimates for the needs of the Army the actual items were perhaps figured on long before they got to you.

Gen. MARCH. I do not think you will find much gain there. The orders of the Department to the heads of bureaus were absolutely mandatory that they were to keep down to bedrock.

Mr. Sisson. Take the item of corn, which I suppose comes in in connection with forage. Corn was, up to the latter part of the summer, and in September, \$2 a bushel. Now corn is worth about 60 cents a bushel in Iowa and 65 cents in Kentucky. That might be a very small item, but it might give an indication of the reduction in prices.

Gen. MARCH. It is a small item.

Mr. Sisson. I was referring to forage. Material generally has been going down in price.

Secretary BAKER. The committee will get the best information on that subject from Gen. Rogers, the Quartermaster General; that is, in reference to present prices.

MANUFACTURE OF SUPPLIES.

Mr. ANTHONY. I want to ask you one other general question. The committee has not gone over the items in the bill yet, but under the estimates which you submitted is it possible to manufacture much new material for the use of the Army, or have you gone on the theory that you have enough surplus stores?

Gen. MARCH. No; in all departments there is a reasonable amount for the manufacture of new supplies, for experimental purposes, etc.

Mr. ANTHONY. For instance, we have now probably more war material stored than all the other nations of the earth, have we not? I am referring to supplies in reserve.

Gen. MARCH. No; I do not think so.

Mr. ANTHONY. How many large guns have we?

Gen. MARCH. I could not say offhand.

Mr. ANTHONY. But you carried to completion a number of war contracts or are carrying them to completion for the manufacture of artillery?

Gen. MARCH. Yes.

Mr. ANTHONY. Then you have immense quantities of ammunition and shells of all kinds, and small arms?

Gen. MARCH. Yes; we have a lot of reserve supplies.

Mr. ANTHONY. Are you asking for any considerable appropriation for machine guns or rifles?

Gen. MARCH. I will have to ask you to get the Chief of Ordnance to tell you exactly what his estimates cover. But we are attempting to keep the Army up; we are asking for extra supplies of all kinds in all departments.

Mr. ANTHONY. Can you give us an idea of the number of pieces of artillery that are really completed now or are in process of completion?

Secretary BAKER. Gen. Williams will be able to give you that information.

NUMBER AND LOCATION OF ARMY CAMPS AND CORPS AREAS.

(See p. 20.)

Mr. SLEMP. I want to ask you another question in reference to the corps areas. You seem to have divided the country into these areas with reference to an attack from the outside as well as with reference to population.

Gen. MARCH. Yes.

Mr. SLEMP. The eighth area protects the Mexican border, the ninth area protects the Pacific coast, and areas 1, 2, 3, and 4 protect the Atlantic coast?

Gen. MARCH. Yes.

Mr. SLEMP. Suppose somebody had the power to cut out some of those corps areas and say we will take the chance, so far as an attack is concerned, what additional protection, so far as the national defense is concerned, do you get by having three corps areas in Kentucky, Ohio, Michigan, Wisconsin, Minnesota, North and South Dakota instead of one, except in connection with the matter of mobility? Is not that about all there is in it?

Gen. MARCH. This is carrying out the law.

Mr. SLEMP. But I said suppose somebody had the right to have some discretion about that?

Gen. MARCH. If we assume a minimum size corps would be four divisions, and we had in each one of the corps areas a Regular Army division, a National Guard division, and two Reserve divisions, we have, then, in each corps area what really is a corps in its organization, and all in the service of the United States. Undoubtedly the idea Congress had in fixing the size of the corps areas as a matter of population was to avoid having one which would be organized into too great size. If you cut out any, it means the readjustment of the entire organization, to make them approximately the same strength. It would mean the readjustment of the whole thing.

PATROL ON MEXICAN BORDER.

Mr. ANTHONY. Are you still maintaining the military patrol along the Mexican border?

Gen. MARCH. Yes.

Mr. ANTHONY. How many troops have you on the border in addition to those at San Antonio?

Gen. MARCH. Gen. Harris can give you those figures.

Gen. HARRIS. I can tell you that in a moment.

Mr. ANTHONY. Is not that a great source of expense to the Army?

Gen. MARCH. No. That force would have to be clothed and fed, whether it was there or at Camp Dodge, or some other place.

Mr. ANTHONY. Does it not cost you more to maintain troops on the Mexican border than in the other parts of the country?

Gen. MARCH. I have never heard that advanced, but whatever it is is small.

Secretary BAKER. Transportation of supplies is the big cost.

Gen. MARCH. As a matter of fact we have had such a condition of relative quiet along the border during the last six months that I have authorized Gen. Dickman to bring back the small parties to a central point, where the problem of supply is easier to handle.

Gen. HARRIS. We have 16,000 enlisted men on the Mexican border.

Mr. ANTHONY. In addition to those in the division?

Gen. HARRIS. Yes.

Mr. ANTHONY. It has occurred to me when conditions are peaceful along the border, in these days of quick transportation, there is no real necessity of maintaining a very large number of troops along the Mexican border, where it is evident it would cost more to keep them up than at any other places.

Gen. MARCH. The Cavalry, of course, is an expensive arm, because you have to take care of the horses in addition to the men. But they would be expensive anywhere.

CAPACITY OF BARRACKS.

Mr. ANTHONY. What is your barrack capacity for enlisted men in the United States?

Gen. MARCH. Including the Coast Artillery force?

Mr. ANTHONY. Including the Coast Artillery, yes; but not counting these temporary camps.

Gen. MARCH. My recollection is that the actual barrack capacity before the war was not far from 90,000. It was under 100,000. But that does not begin to cover the Army you have given us now.

Mr. ANTHONY. So with an Army of 175,000 men you would have to——

Gen. MARCH (interposing). We would have to double that anyway.

Mr. ANTHONY. You would have to keep 100,000 of them in the camps built during the war?

Gen. MARCH. That is what I mean.

Mr. ANTHONY. You are asking large sums of money to convert many of them into posts. You are asking for that in another bill?

Gen. MARCH. Yes; that is in the sundry civil bill.

Mr. ANTHONY. Are you utilizing all of the barrack capacity in the different posts of the country now?

Gen. MARCH. That brings up another point. The departments, as you know, almost always have had their headquarters in cities. In establishing these corps areas it was our idea to take the headquarters out of cities and put them in posts; and to put all the supply people, too, so far as we could, in the old Army posts. You remember that Gen. Wood used to have his headquarters in Chicago. But Gen. Wood has been moved out to Fort Sheridan, where he has his headquarters on a reservation. So his headquarters cost nothing for rent. We have done that same thing all through the United States. The only place where we are still in a city is at Boston, and it is possible that we will move from there out to Camp Devens before we get through. That takes up eight of the permanent posts which before the war were occupied by the men of the little Army we had then.

In addition to that we have turned over to the Public Health Service for their temporary use quite a number of posts, for the construction of wounded and sick men who were in the war. We

have assisted them whenever we could do so. If an analysis were made right now of the actual housing capacity of the plant which existed before the war, I am confident that it would be less than 80,000.

Mr. ANTHONY. Are there not some perfectly good modern posts which are not being utilized at this time for the housing of the troops?

Gen. MARCH. That is very doubtful.

Mr. ANTHONY. A Member of Congress called my attention to Fort Meade this morning and said that that post was not being utilized and that it is a perfectly good post. What is the condition of that post?

Gen. MARCH. I could not answer that offhand. The first statement the Secretary made shows what we are trying to do. We are trying to get the troops to work together in divisions, so that if an emergency comes, the general in command with his trained staff and division of troops could go out together.

Mr. ANTHONY. If it is not thought advisable to construct nine perfectly modern posts in these corps areas, would it not be economy to utilize these posts that have these facilities?

Gen. MARCH. Not in the long run, because you lose efficiency. You can not get instruction by putting them off in small places.

Mr. ANTHONY. But if it is going to cost more money than we can afford to appropriate, in the meantime would it not be economy to utilize the facilities you have?

Gen. MARCH. I do not think so. As a matter of fact, at each one of those small posts the War Department is constantly asked for the use of it by civilian organizations. People want to occupy a post as a public park, and the department has been most liberal in granting such permission. Then some States want them back.

Mr. ANTHONY. Will you put in the record a list of the posts that have modern quarters and modern barrack facilities which are not now being utilized by troops?

Gen. MARCH. I will be very glad to.

LIST OF POSTS THAT HAVE MODERN QUARTERS AND BARRACK FACILITIES WHICH ARE NOT NOW BEING UTILIZED BY TROOPS.

Posts not occupied, in charge of caretakers: Fort Lincoln, N. Dak.; Fort Keessie, Wyo.; Missoula, Mont.; Fort Walla Walla, Wash.

Army posts not occupied by Army, but used for other purposes (being used by Public Health Service): Boise Barracks, Idaho; Fort William Henry Harrison, Mont.; Whipple Barracks, Ariz.

Posts partially occupied by Army: Fort Douglas, Utah; Fort Lawton, Wash.; Madison Barracks, N. Y.; Fort Meade, S. Dak.; Plattsburg Barracks, N. Y.; Fort Logan H. Roots, Ark.; Fort D. A. Russell, Wyo.; Fort Snelling, Minn.; Fort George Wright, Wash.; Vancouver Barracks, Wash.

NOTE.—It is contemplated that when all corps and Army troops (not divisions) have been organized and when the bulk of the troops have been withdrawn from the Mexican border all of these posts, as well as all camps, will be filled to capacity.

Gen. MARCH. Mr. Chairman, I wanted to say something about the matters which pertain to the General Staff Corps.

AIR SERVICE AS A MEANS OF DEFENSE.

Mr. CRAMTON. Some time before these gentlemen leave, Mr. Chairman, I would like to ask an expression from them with reference to

the part that the Air Service plays in the general scheme of defense. With reference to our particular needs for defense, for I take it that that is the chief purpose of an Army for America, I read with much interest recently an article by Gen. Mitchell as to the part the Air Service plays in our defense, and I would be glad to have some expression from the Secretary and also from Gen. March as to the part it is to play. I notice you have an item of \$60,000,000 for the Air Service, and I want to know whether you consider that sufficient, and I also want to know what effect a proper air force has on the size of the Army that we might require for defense purposes.

Gen. MARCH. The strength of the Air Service has no bearing whatever on the strength of the Infantry we need for a properly equipped Army now. In other words, a war is simply a question of getting the Infantry across the enemy's lines. The Infantry is the backbone of all fighting schemes.

Mr. ANTHONY. You consider the Air Service entirely auxiliary to the line of the Army?

Gen. MARCH. Wholly so. We are not going to win battles by the Air Service alone.

Mr. CRAMTON. If we had control of the air that would in no way remove the necessity for a large Regular Army?

Gen. MARCH. No.

Mr. CRAMTON. It would not have any effect upon it?

Gen. MARCH. No. The Air Service is a very valuable auxiliary arm. It has now arrived at a point where it can be classed as a fourth arm, coordinate with the Infantry, Cavalry, and the Field Artillery. The service which it renders in obtaining information, and possibly in a minor way in harassing the enemy, is of the utmost value, but it can not replace the Infantry. That can be assumed as an axiom.

Mr. CRAMTON. What is the possibility of the invasion of this country if we have control of the air?

Gen. MARCH. It is not affected by that. If another country, for instance, were to have control of the sea, the fact that we had control of the air would not prevent that other country from landing troops.

Mr. CRAMTON. It would make no difference whatever?

Gen. MARCH. It would make no difference.

Mr. CRAMTON. You think the Nation that had control of the sea could bring troops to this country if we had control of the air?

Gen. MARCH. Oh, yes.

Mr. CRAMTON. May I ask, Mr. Secretary, if you join in that view?

Secretary BAKER. Of course, that is a military question. It depends upon the character of the control of the air. If the hopes of those who believe that the air is a developing service, and that we have only touched the outside of its possibilities, are realized, it may be that the control of the air may have a much more profound effect upon the size of the Army. In the present state of the Air Service, so far as I may confine it to that state of the Air Service, I share Gen. March's opinion.

Mr. CRAMTON. So whatever estimates are made by your department in the bill before us for the Air Service have been based upon the theory that it is merely a scouting branch of the service?

Gen. MARCH. It is based upon the theory that it is an auxiliary arm that must be built up and kept up as other arms are, but it is not to supersede the other arms of the service.

CONTEMPLATED GARRISONS BEYOND CONTINENTAL LIMITS OF THE UNITED STATES.

Mr. SLEMP. How many men does this estimate contemplate having in Panama, in Hawaii, and in Germany during the next year, including all branches of the service?

Gen. MARCH. I will put the actual figures on the record.

	Officers and men.
Germany.....	8,197
Hawaii.....	20,186
Philippines (including China), including Philippine Scouts.....	21,212
Panama.....	17,138
Porto Rico.....	1,784
Alaska.....	360

Mr. ANTHONY. How many men have you in Panama now?

Gen. MARCH. The Adjutant General has those records.

Gen. HARRIS. Whatever men we have down there we are going to increase.

Mr. ANTHONY. To a full division?

Secretary BAKER. I think this explanation ought to be made. If we are correct in the theory that an efficient Army is an Army trained in the division as a tactical unit, then any soldiers substantially less than a division who are sent to Panama or any other place whatever are to that extent untrained in the most necessary kind of training, and the keeping of a full division in Panama would enable us to have a trained division.

Mr. ANTHONY. How many men are there there?

Gen. HARRIS. There are 5,978 officers and men in Panama. That was the number on November 30.

Mr. ANTHONY. And in Hawaii?

Gen. HARRIS. In Hawaii there are 7,013 officers and enlisted men.

Mr. ANTHONY. And in the Philippines?

Gen. HARRIS. In the Philippines there are 18,826 officers and enlisted men.

CONTINGENCIES OF THE ARMY.

DISPOSAL OF SURPLUS MATERIAL.

Mr. ANTHONY. Under this item for contingencies of the Army are carried the activities of disposing of the surplus material of the War Department?

Secretary BAKER. Yes.

Mr. ANTHONY. You are asking for \$100,000 out of the \$150,000 for that purpose?

Secretary BAKER. Yes.

Mr. ANTHONY. If I remember correctly, last year it was stated to the Committee on Military Affairs that that work would be cleaned up by the end of the present fiscal year. How far have you progressed in the work of disposing of that?

Secretary BAKER. There are still large quantities still undisposed of—very large quantities.

Mr. ANTHONY. So you think it will still require a force of civilian for that purpose?

Secretary BAKER. I think so. The present Sales Department has requested a deficiency estimate for their use, which I have declined as yet to approve, and at Gen. March's suggestion we are trying to see whether we can loan clerical help to them from other branches of the service.

Mr. ANTHONY. Who is the head of that Sales Department?

Secretary BAKER. Mr. Morse; but he retires on the 31st day of the month, and it will be almost exclusively operated after that time by officer personnel.

Mr. ANTHONY. What material have you for sale that would require these civilian experts to dispose of which could not be done through the machinery of the Quartermaster Department and other departments?

Secretary BAKER. We are putting officer personnel almost exclusively on that work. Whether the \$100,000 will still be needed for expert civilian service, I have no means of knowing. That is a limitation rather than an appropriation; it says not more than that shall be expended.

Mr. ANTHONY. You have a military organization in the Quartermaster Department and possibly in other departments selling this surplus?

Secretary BAKER. Yes.

Mr. ANTHONY. Why could they not carry on the work entirely?

Secretary BAKER. It may be they can; I hope they will have gotten it to such a point that they can, but the sale of vast quantities of accumulated supplies does require the consultation of civilian experts.

Mr. ANTHONY. Do you not think it would be possible to clean up the work necessary to be done by your civilian force between now and the end of the present fiscal year, so that all of the work in the future can be done through these departments?

Secretary BAKER. I think it would be a pity for you to put a limitation upon the contingent fund at the disposal of the Secretary of War that would prevent him from employing experts if he needed them. In the report of the Quartermaster General for 1898, I think it is, there is a complaint that the department had not even been able to dispose of the accumulated raincoats which had been bought in 1864. There are refractory commodities—

Mr. ANTHONY (interposing). That was a matter of neglect, was it not?

Secretary BAKER. Not at all. The department had distributed them by mandatory order to man after man, but still the Quartermaster General complained that he had not been able to dispose of them all; but he finally got rid of them. But our experience shows that there are certain commodities more or less unmerchantable which have to await a market, and it requires very shrewd judgment to know when a market has arrived.

Mr. ANTHONY. Can you tell us, roughly speaking, the amount in dollars and cents of the surplus material still awaiting sale?

Secretary BAKER. I can not. It has not all been declared, as a matter of fact. We are constantly declaring and adding to that which has to be sold.

SALARY OF DIRECTOR OF SALES.

Mr. ANTHONY. What salary are you paying the Director of Sales?

Secretary BAKER. My impression is that it is \$12,000. This limits it to \$12,000. I think that is what he is getting, but that ceases on the 31st of this month.

Mr. ANTHONY. The \$100,000 would go almost entirely to the salaries of men employed?

Secretary BAKER. Wholly, to the extent that it is spent at all. Of course, I have nothing to do with that.

Mr. Sisson. In addition to any expert knowledge which these civilian employees may have, the greatest service they render the Government is not so much in the knowledge of the article sold, but the knowledge of the markets—when and where to dispose of the material?

Secretary BAKER. Exactly.

SURPLUS MOTOR-DRIVEN VEHICLES.

(See p. 41.)

Mr. Sisson. We have this complaint to make, that perhaps the proper officers of the Army have not, as rapidly as they might have done, released this surplus material. Take, for example, the automobiles, running up into 80,000 or 90,000 on hand. They have disposed of some 34,000 of them. About 25,000 have been absorbed under the act giving them to the States and the subdivisions of the Government for constructing roads, leaving a vast quantity on hand, and we have had a great deal of trouble in locating not only the automobiles, as to where they are stored, but a great deal of trouble in ascertaining the number of automobiles on hand.

The report comes to the committee in a rather quasi-official capacity, not sufficient to justify contradiction, that many of these automobiles have been left out in the air and have deteriorated and been ruined and destroyed, running up into many thousands of automobiles. I was wondering if a policy could not be adopted, a rather vigorous one, of releasing this material, even down below what the branch of the Army might believe was necessary to be kept in reserve.

Secretary BAKER. Of course, I am perfectly sympathetic with all that you have said. I think this ought to be said about it, that when the armistice came every agency that manufactured motor vehicles in the country was busy manufacturing them for the War Department and shipping them to the seaboard. The seaboard was piled high with goods which could not get abroad, unprecedented jumbles of material.

Mr. Sisson. But we have heard all of that.

Secretary BAKER. Let me add a sentence. I am not going to make speech about it. Orders were in process that led to further delivery, warehouses were swamped with them, and as soon as the armi-

stice came, men who were familiar with this stuff began to be demobilized. We could not retain them in the service, so that we had a vast volume of stuff, constantly being added to, turned over to men who had had no previous contact with it, and the business of locating and scheduling it and determining its condition was a vast undertaking. An automobile is not an automobile until you have examined whether its spark plugs are in and all its parts are there. The size of that job is very great.

Mr. Sisson. You say, Mr. Secretary, that you used the automobile as an illustration.

Secretary BAKER. I understand your use of the word "automobile" includes a great many other kinds of vehicles.

Mr. Sisson. As a part of all supplies on hand.

Secretary BAKER. As motor cycles, with side cars, auxiliary trailers, trucks, tractors, and all that sort of internal-combustion engine stuff. I have given orders—I do not mean to say that it is necessary to give them more than once in order to have them obeyed, so far as obedience was possible—I have given orders repeatedly to the Chief of the Motor Transport Service that every agency of the War Department should be used to expedite the release of this stuff and dispose of it before it deteriorates, and if any further injunction from me to them will accomplish it, I am wholly in sympathy.

Mr. Sisson. We have information, including all kinds of motor-driven vehicles, that there is perhaps a tentative understanding that there will be released something like sixty-odd thousand. I would like to be able to correct that statement, because I can not get it here. This committee thought that the reports that have been made of sales have been at least reasonably satisfactory. But of the 65,000 automobiles, as we understand it, many of them are rapidly deteriorating for want of care. Now, if they were immediately turned over to this committee, then they would classify them and offer the automobiles, and before these bills get out of the way it is possible that by a small appropriation they could do a little repair to the cars to make the cars perfectly good and save the Government millions of dollars in their sale. We have endeavored to take care of the motor service of the civil branches of the Government by having the War Department transfer any suitable cars under the provision that where such a car can be used, whether it is exactly what they want or not, that such car shall be bought from the War Department by the civil branch of the Government. But you see at once the difficulty, and I am not criticizing the machinery at all. But the great difficulty in ascertaining what is to be declared surplus seems to result in delay in selling this stuff. And another trouble is that if it could have been declared surplus at an earlier date, all of that stuff could have been sold at a much better price and could have been sold more rapidly than the market will absorb it now.

Secretary BAKER. I want to confess frank amazement at your figure.

Mr. Sisson. I was never more astounded in my life in the last appropriation bills at the large number of vehicles of that kind.

Secretary BAKER. My amazement is in this—that if there are 65,000 motor vehicles in the possession of the Army still to be declared surplus and sold, then I am wholly amazed.

Mr. Sisson. I understand that includes all kinds of trucks and tractors.

Mr. ANTHONY. Is it not possible that you have automobiles and trucks that have not been declared surplus?

Secretary BAKER. I am still saying, taking the legitimate reservations for the supply of the Army and its reserve, Mr. Sisson's thought is that from some place he had been given the idea that there still remains to be declared and disposed of 65,000 motor-driven vehicles.

Mr. ANTHONY. You have authority now to sell any automobile or truck that may be declared surplus?

Secretary BAKER. An act of Congress provides that surplus motor vehicles be transferred to other governmental departments without a corresponding transfer of funds, the surplus not wanted by other governmental departments may be sold.

Mr. ANTHONY. Sell it in the market?

Secretary BAKER. Certainly.

Mr. ANTHONY. What is going to be done, for instance, with those automobiles still in their original boxes, the boxes exposed to the elements, in different transport camps, such as Holabird, where there are hundreds of them?

Secretary BAKER. Many of them have been reserved as the proper equipment of the peace-time Army.

Mr. ANTHONY. I think the number was given as 30,000 trucks that have been reserved. Is that correct?

Secretary BAKER. I can not answer.

Mr. SLEMP. Could we not get the statement?

Secretary BAKER. Mr. Sisson evidently has that in his committee hearing.

Mr. SLEMP. It applied only to the one article.

Mr. ANTHONY. I want to ask you about those trucks. As a matter of policy, say we have reserved 30,000 or more Army cars manufactured during the war for the purpose of a reserve for use in time of war, does it not stand to reason that, should an emergency arise three or four or five years from now, those trucks will be out of date and of small value at that time, and would it not be best to adopt the military system that other countries have adopted, namely, of commandeering motor transportation that is in civil use.

Secretary BAKER. Clearly it would be unwise to keep any very large surplus of motor transportation, although I think the building of a motor truck is so stabilized an art that five years will not make much difference.

Mr. ANTHONY. Are there not a great many so-called Liberty trucks?

Secretary BAKER. I think so.

Mr. ANTHONY. And is it not a fact that in a few years it may be difficult to get extra parts for this truck, should they be put into use? That would be a serious item which would militate against keeping them.

Secretary BAKER. Being a specialized truck, the repair parts would be more difficult to get.

Mr. ANTHONY. So that it would be well to dispose of the entire number of trucks?

Secretary BAKER. So far as they are reasonably surplus.

Mr. ANTHONY. Would it not be a good policy to declare practically all of them surplus, beyond the actual needs of the Army for such motor transportation to-day?

Secretary BAKER. Beyond the needs of the Army for motor transportation to-day, I think there should be such a reserve as would be necessary in the event of speedy mobilization to carry forward that mobilization until a fresh supply could be obtained.

Mr. ANTHONY. I have had men whose military judgment I rely on say that they consider the best policy would be to dispose of those trucks, and in time of emergency to resort to the civilian supply of trucks.

Mr. Sisson. Commandeer the trucks.

Secretary BAKER. It might well be.

Mr. Sisson. While we are on this question, I went back to try to get the testimony of the young Army officer. I have forgotten his name. His testimony was very clear and concise. He and Mr. Morse testified together. The officer was testifying and Mr. Morse was asked by him to answer the questions. I can not get his testimony. The stenographers have it. But Mr. Woods's and Gen. Lord's recollection of the testimony is about as mine, that they had disposed of only about 34,000, all but about 8,000 of these were given to miscellaneous people, and about 8,000 went to roads under the act of Congress, and about 65,000 would be released, but that he thought that all of the serviceable automobiles and tractors and other motor vehicles of that kind would be retained by the Army in its reserve, and that the 65,000 released would be those denominated unserviceable cars, or unserviceable vehicles of various kinds. Now, those that are very unserviceable, of course, would be sold as salvage, sold as material, but he states that there are as many as 65,000 of those vehicles. While these bills are in progress, it is possible for us, if we have the proper information, to take charge of those, and by the expenditure of a very small sum of money get those vehicles in a salable condition as secondhand vehicles and get real cash for them.

Mr. ANTHONY. Most of them are now in the original boxes.

Mr. Sisson. Yes; I understand.

Secretary BAKER. Gen. Lord can tell more about that.

Mr. Sisson. As a general policy I imagine it would come from the Secretary of War.

Secretary BAKER. Undoubtedly.

Mr. Sisson. It would require a considerable survey to go over that property and segregate what the Army wants and take out the individual units that the Army does not need. This will require physical examination of almost every car, and, as suggested by the chairman, some of these cars were not taken out of their original boxes but are exposed to the weather, and they will have to be opened. It is quite an undertaking to segregate these automobiles and the vast quantities of other material, as you stated a moment ago, that ought to be salvaged at the earliest possible moment, because the Government is to some expense in caring for them, and we should get the money into the Treasury, because Uncle Sam's pockets are in bad shape. In my judgment, if some radical measures were taken for

the purpose of disposing of this stuff, it would inure to the benefit of the people.

Secretary BAKER. I wholly share that feeling if there are 65,000 vehicles, and if it be found that there are 65,000 vehicles which are to be classed surplus it seems a serious thing.

Mr. Sisson. I have given my source of information.

Secretary BAKER. I should be glad to look into it.

Mr. Sisson. If we are mistaken about that testimony, I should be glad to learn it.

Secretary BAKER. I will put into my hearing an answer to the question on that subject which will restate the case if I discover on inquiry that there is a misunderstanding as to the number and the status of these machines.

(The statement referred to is as follows:)

Statement showing number of motor-driven vehicles on hand Apr. 1 and Oct. 30, 1920.

Number of vehicles on hand Apr. 1, 1920.....	111,766
Total number of surplus vehicles disposed of.....	55,338
Number of trailers.....	8,237

Total number of vehicles (less bicycles and trailers) on hand---- 48,191

(On October 30, 1920. In order to further reduce the number of motor vehicles, the following policy was adopted:

(a) All unserviceable motor vehicles of all classes and types, including trailers at present carried as in use, be replaced by serviceable vehicles now in storage.

(b) All unserviceable motor vehicles of all classes and types, including trailers, be disposed of without further delay.

(c) The number of motor vehicles now held in storage for issue to the National Guard (7,966) be released from such limitations as to issue, or all or such numbers thereof as may be determined by the Militia Bureau, turned over to States designated by the Chief, Militia Bureau, for storage.

(d) The number of motor vehicles now held in storage for issue for vocational training purposes (1,500) be released from such limitations as to issue.

(e) Not to exceed 30,000 vehicles of all classes and types to be retained for use at all posts and stations other than divisional stations, for divisional supply, and for reserve and maintenance purposes.

(f) All serviceable vehicles of all classes and types, except those enumerated above and those of design for technical purposes, be disposed of without further delay.

After deducting from the above total of 48,191 the number to be retained by the Regular Army for all purposes, 30,000, and the number reserved for the National Guard, 7,036, an approximate surplus of 11,155 trucks and chassis remains. The total of 30,000 to be retained by the Regular Army includes, approximately, 6,500 for divisional supply, 13,500 for posts and camps other than divisional, and a maintenance balance of approximately 10,000, from which must come all transportation required for motorized Coast Artillery brigades, Field Artillery brigades, and other corps and Army troops.

The above surplus will practically all be absorbed by transfer to other Government agencies under existing laws, leaving few, if any, trucks to be sold. No trucks are being retained for the Organized Reserves.

Mr. Sisson. Now, it also seems that at this juncture we ought to ascertain, if possible, as nearly as we can, how much of this material is on hand of all kinds in the War Department. Is there any place where we may go to get some reasonably accurate information about the amount of this material that is on hand that might be disposed of?

Secretary BAKER. Very much of it has been inventoried. Some of it has not.

Mr. Sisson. Well, now, if it has been inventoried, it ought to be easily ascertained.

Secretary BAKER. Yes; it ought to be easily ascertained.

Mr. Sisson. That which has not been inventoried is, of course, in charge of somebody?

Secretary BAKER. In warehouses in process of inventory.

Mr. Sisson. In other words, we might get at a reasonably accurate estimate of what is on hand.

Secretary BAKER. Yes; reasonably accurate.

Mr. Sisson. If all the proper officers could work on that, it ought to be done at as early a date as possible, so that we may take steps to save the Government as much as possible.

Mr. ANTHONY. Would it be possible, Mr. Secretary, to put into the record, along with this item on sales force which you contemplate here, a list of the quantities of the most important articles that have been declared surplus?

Secretary BAKER. And remain unsold?

Mr. ANTHONY. Together with the amount of each which are being held in reserve by the Army.

Secretary BAKER. Yes.

(The statement requested is as follows:)

Sales and transfers of surplus war supplies located in the United States, from Nov. 11, 1918, to Nov. 19, 1920.

	Total declara- tions of sur- plus cost. ¹	Sold proceeds.	Sold cost.	Transferred to other Government departments cost.	Unobli- gated balance cost. ²
Sales prior to Dec. 1, 1918, unclassified.....	\$140,000,000	\$123,000,000	\$140,000,000		
Airplanes and equipment.....	36,282,370	4,610,000	26,113,000	\$2,140,370	\$9,000,000
Animals.....	34,306,500	21,320,000	34,305,000	1,500	
Building materials and utilities.	13,173,000	5,029,000	10,600,000	943,000	1,630,000
Chemicals, acids, and ex- plosives, ordnance.....	60,646,000	26,749,000	30,184,000	25,550,000	4,912,000
Clothing and equipage.....	85,630,000	28,316,000	59,056,000	2,709,000	23,865,000
Ferrous metals and scrap.....	144,985,000	29,945,000	131,559,000	226,000	13,200,000
Leather and harness.....	35,715,000	6,507,000	8,199,000	16,000	27,500,000
Lumber.....	12,181,200	5,322,000	12,158,000	23,200	
Machine tools.....	39,168,000	14,239,000	32,318,000	1,700,000	5,150,000
Machinery and engineering equipment.....	56,585,000	15,365,000	31,410,000	5,427,000	19,748,000
Electrical equipment and hardware.....					
Medical and hospital supplies..	18,141,000	1,130,000	2,051,000	6,876,000	9,214,000
Miscellaneous classes.....	178,883,000	54,304,000	158,737,000	2,219,000	17,927,000
Motors and vehicles.....	97,501,000	3,891,000	17,915,000	73,246,000	6,540,000
Nonferrous metals and scrap...	116,397,000	51,846,000	103,905,000	92,000	12,400,000
Plant facilities (land and build- ings).....	125,775,000	20,508,000	120,994,000	436,000	4,300,000
Railway rolling stock and ma- terials.....	129,834,000	106,414,000	124,591,000	2,943,000	2,500,000
Ships and floating equipment..	10,358,300	2,242,000	5,844,000	14,300	4,500,000
Subsistence.....	91,970,000	36,825,000	58,128,000	6,404,000	27,400,000
Textiles (exclusive of wool)....	122,665,000	86,462,000	119,112,000		3,500,000
Wool.....	325,298,000	241,491,000	282,903,000	1,235,000	41,100,000
Total.....	1,875,474,370	885,515,000	1,510,082,000	132,210,370	233,182,000

¹ This is net declaration of surplus, and does not include withdrawals and cancellations.

² Unsold or obligated to other Government departments.

³ Sale provided for under contract with United States Harness Co.

EMERGENCY AND CONTINGENT EXPENSES.

Mr. ANTHONY. That would leave \$50,000 of this appropriation for contingencies for other items.

Secretary BAKER. Yes.

Mr. ANTHONY. What do they consist of?

Secretary BAKER. They are described in the language of the bill itself, Mr. Anthony, and they are, of course, unsusceptible of further exact description because they are emergency and contingent items which can not be foreseen.

Mr. ANTHONY. Have you any unexpended balance to-day?

Secretary BAKER. Very little.

Mr. ANTHONY. It will require this full amount?

Secretary BAKER. I should think so.

Mr. SLEMP. I want to ask a question, Mr. Secretary, it is kind of a general question. I believe you stated a few moments ago in the general inquiry that there would be a deficiency somewhere from \$60,000,000 to \$80,000,000 in the Army.

Secretary BAKER. Yes.

REDUCTION IN SIZE OF ARMY TO AVOID A DEFICIT IN 1921.

Mr. SLEMP. We all feel here that we do not give the same interpretation to this that gentlemen in the War Department do, of the act of 1920 really being mandatory so far as 283,000 men are concerned, where we are clear to say that the War Department should hold the Army intact at 175,000 men. We think it should not have exceeded that. Now, suppose that we should ask you to take care of that deficit between now and the 1st of July by readjustment of your affairs and personnel in some way or other about which we would not spend the money. What rearrangement of your plans and number, and so forth, would that require, and what effect would that have on enlistments, and so on. As a business man, if I was running behind, I would readjust myself in such a way as to take care of a deficit that I saw ahead, especially in this crisis, as there is a marked division of sentiment in Congress on that point.

Secretary BAKER. The only answer I could give is a general answer. It would, of course, require the immediate discontinuance of all recruiting, and the discharge, by some process—I do not know of any legal process by which it could be done—of half of the present force.

Mr. SLEMP. You would run the Army immediately down to about—it would not be half, because you have only got 208,000, and you have not had that 208,000 since the 1st of July.

Secretary BAKER. We have had more than that.

Mr. SLEMP. Have you had an average of 208,000?

Secretary BAKER. I would not like to say. The least we ever got—

Mr. ANTHONY. Mr. Secretary, you have enough enlistments expiring in the next few months to allow the Army to be reduced?

Secretary BAKER. I think not, but you may be right about it. The number we had on January 21, 1920, was 221,000, and it ran over 200,000 continuously throughout the year 1920.

Mr. ANTHONY. How many are one-year enlistments?

Secretary BAKER. Roughly, 40 per cent is my recollection.

Mr. ANTHONY. So that if you just cease enlisting men, by the normal process of discharge you will be down to 175,000?

Secretary BAKER. Yes. That is not the question he asked.

Mr. SLEMP. That was involved, one of the answers.

Secretary BAKER. Mr. Slemp's question was this, That if the Congress decided not to make a deficiency appropriation and to require me to cover the expenses of the Army until the 1st day of July of the coming year, without making an appropriation, how could it be accomplished? I told him, of course, that it would be necessary to discontinue at once all enlistments and reenlistments, and by some process to discharge a substantial part of the existing forces. I do not know how that could be done, since those men have contracts of enlistment.

Mr. SLEMP. If you could make an investigation of that we would appreciate it.

Secretary BAKER. Gen. Lord would have to do that, or I would have to get him to do that for me.

Mr. Sisson. Suppose this deficiency should not be given you now? There is certain to be a special session of Congress, and if you should continue your Army under your present appropriation, certainly there would be a special session of Congress, and if any serious damage was done to your organization this deficiency bill would take care of it then. You are anticipating a deficiency now?

Secretary BAKER. Yes; we are anticipating a deficiency now.

Mr. Sisson. It does not actually exist if you so apportioned your funds—I am not sure that that is one which is to be apportioned or not.

Secretary BAKER. I am not sure of it, either.

Mr. Sisson. But whether it is or not, I presume that you have apportioned your funds yourself so as, if possible, to take care of all the exigencies until the appropriation, and if you find you have to use more of your appropriation, and in the end you could see that there is bound to be a deficiency, which you anticipate but not now existing, we might wait until the special session of Congress.

Secretary BAKER. But my duty is to present it to you and not to leave it to my successor.

Mr. Sisson. And whatever we do we assume the responsibility.

Secretary BAKER. Whatever you do is right after it is done.

Mr. SLEMP. Are you going to put in the hearings a tabulated statement of sales? Was that asked?

Secretary BAKER. That was not asked.

Mr. SLEMP. Would that be troublesome?

Secretary BAKER. That has been supplied separately. A copy has gone to each House.

Mr. SLEMP. Up to what time?

Secretary BAKER. December 6.

Mr. SLEMP. Does that also give a statement of the supplies on hand not declared a surplus?

Secretary BAKER. I think not. That I have agreed to get, as far as I can, and put in the hearing.

GENERAL STAFF COLLEGE.

COST OF FUEL.

Mr. ANTHONY. If there are no further questions on the item of contingencies we will go to the next item, General Staff College.

Perhaps Gen. March can tell us the reason that was increased by \$7,430 in this item.

Gen. MARCH. That one increase is absolutely limited to the increase in the cost of fuel, but I will ask you to call upon the officer who is directly responsible. That is all I wanted to say about the General Staff College item, leaving it to the department officers to support the individual items.

I would like to make some remarks in behalf of the Military Intelligence Division of the General Staff.

Mr. ANTHONY. The next item in the bill?

Gen. MARCH. The Staff College item increase is due to the increase in cost of fuel.

OFFICE OF CHIEF OF STAFF.

CONTINGENCIES, MILITARY INTELLIGENCE DIVISION.

Mr. ANTHONY. For Military Intelligence we appropriated \$300,000 last year, and you are asking for \$398,000.

Gen. MARCH. Last year we asked for \$400,000 for the Military Intelligence Department, and Gen. Churchill supported that in the hearing. He went into confidential session with the committee and he explained some of the foreign relations which the Military Intelligence has. As a matter of fact, the Military Intelligence Division of the General Staff has become a great military asset, and it is a department which is in close contact with the State Department in all the international relations in which the State Department takes part. We have information from all the storm centers of the world. There is nothing which I can say which would be too strong to emphasize the importance of the work of the Division of Military Intelligence of the General Staff.

Mr. SLEMP. Is there duplication of service between the State Department and the Military Intelligence department?

Gen. MARCH. There is not.

Mr. CRAMTON. That has reference purely to the military?

Gen. MARCH. Yes.

Mr. CRAMTON. But what have you to suggest as to this tendency of that branch of the service to spread out and to cover matters that are not only military and political but also those that are commercial and economic?

Gen. MARCH. If you have in mind the work that went on during the war——

Mr. CRAMTON. No; I will say now that I was recently abroad and was in touch with that branch of the service, and it seemed in some places that the service was being organized far beyond what it was during the war. The forces engaged, the office forces and employees and the activities were greater than those that I have found during the war, and the reports were being made, data collected and assembled, and reports being made of the economic condition of countries, and the commercial development of countries, work that is also done or attempted to be done not only by our Consular Service but by our commercial attachés, and so forth.

Gen. MARCH. As a matter of fact, Mr. Cramton, the Military Intelligence Division has been cut down in every way—personnel, clerks, extended activities, and so forth. Since the declaration of

the armistice we have called them in from the matters which during the war possibly were mandatory, but since the war they have been turned over to the Department of Justice. There has been a straight dividing line drawn by ourselves and the Secretary of War between the activities of the Military Intelligence now and what we did in the war.

Mr. CRAMTON. To renew this question, does the service attempt at the present time surveys as to the economic and commercial conditions?

Gen. MARCH. The reports of the Military Intelligence that come to my desk that deal with the economic condition of any section of the world do so as an adjunct, and for proper appreciation of what is going on from a military standpoint. I do not think they conflict with what comes in through the civil channels.

Mr. CRAMTON. It is not a question of conflict but of duplication.

Gen. MARCH. I understand.

Mr. SLEMP. The large bill shows the appropriation of \$10,000 in 1914, \$11,000 in 1915, and \$11,000 in 1916.

Gen. MARCH. Before the war.

Mr. SLEMP. Yes. But we are now back to the condition before the war.

Secretary BAKER. The world is not.

Mr. SLEMP. They are dying down slightly.

Gen. MARCH. When we entered into this war we had a Military Intelligence Section, which was a part of the War College. We actually had to cover the work two officers and two clerks. After the armistice, when I came back from abroad I found it was well organized, but yet in a subordinate and inferior way. We took it out and built it into the fine machine it is now.

Mr. SLEMP. Does this \$300,000 include the salaries of officers?

Gen. MARCH. No.

NUMBER OF CLERKS.

Mr. ANTHONY. General, last year, if I remember correctly, it was stated that they proposed to employ 127 clerks, or some number like that, in the office of the military intelligence. That struck me as being a large number.

Gen. MARCH. I do not know about that.

Mr. ANTHONY. Is there not such a thing as building up too large a machine?

Gen. MARCH. I do not think so. The work of the Military Intelligence Section done now is of the greatest value not only to us but to the General Government.

Secretary BAKER. Get Gen. Nolan to show the members of the committee confidentially a weekly summary of just what the condition of the world is to-day.

Mr. CRAMTON. Just one more question of Gen. March. Perhaps it might be better to ask it of Gen. Nolan. In building up this service as it stands, is it meant that it shall be an adjunct of the diplomatic service and always operated in the closest possible connection with our diplomatic service?

Gen. MARCH. Yes. It goes further than that. The military attachés that we have at foreign capitals are not sent over there of their own responsibility. They are sent over to report to the ambassador. We frequently find that the cables to the State Department will say, "See the military attaché's report of this date," or the military report will state that the State Department has got a report on the matter in question.

Mr. CRAMTON. It is not contemplated, then, in every foreign capital to have the military attachés housed apart from the ambassador that is stationed there.

Gen. MARCH. No.

Mr. ANTHONY. Do not the activities of the military intelligence organization duplicate the services of the military attachés in foreign capitals?

Gen. MARCH. No.

Mr. ANTHONY. They were originally supposed to secure military intelligence.

Gen. MARCH. The military observer class is a different class.

Mr. ANTHONY. I mean the military intelligence class. They practically duplicate the same work that was performed by the military attachés?

Gen. MARCH. The military intelligence man is the military attaché.

Mr. ANTHONY. In every instance?

Gen. MARCH. Yes; all are members of the General Staff, under the new bill, a part of the military intelligence system.

Mr. ANTHONY. The pay of all those officers is included in the pay of the Army?

Gen. MARCH. Yes.

Mr. ANTHONY. What are the actual items of expense?

Gen. MARCH. I should like to have Gen. Nolan go into the details of that.

Mr. ANTHONY. If there are no other questions on the general Army policy, and the Secretary has not anything else to tell us, we will go on to Gen. Nolan. We are very much obliged, Mr. Secretary.

SURPLUS MOTOR-DRIVEN VEHICLES.

(See p. 31.)

Mr. Sisson. Mr. Secretary, we are glad to have you up here. I find from those gentlemen over there that it is 50,000 trucks.

Secretary BAKER. Yes; they tell me that that includes trailers and bicycles and all kinds of things.

Mr. Sisson. It is all sorts of vehicles.

Secretary BAKER. Yes. I am very much obliged to you. I have learned from this and I will get after them.

Mr. Sisson. They say it is 50,000, and I am not sure how the number 65,000 got into our heads.

Secretary BAKER. The total number he says is 86,000, but that includes everything.

THURSDAY, DECEMBER 16, 1920.

**STATEMENTS OF MR. E. C. MORSE, DIRECTOR OF SALES, AND
LIEUT. COL. E. S. HARTSHORN, GENERAL STAFF.****OFFICE OF DIRECTOR OF SALES.****SALARIES AND MAINTENANCE.**

Mr. ANTHONY. We will hear Mr. Morse first this morning.

Mr. MORSE. Mr. Chairman, May I ask that Col. Hartshorn present a statement regarding the appropriations requested for next year first, and then I will answer any questions you have to ask in connection with them.

Mr. ANTHONY. Colonel, when did you take charge of the office of director of sales?

Col. HARTSHORN. I have not as yet taken charge. I have been ordered to relieve Mr. Morse, the director, effective upon the date of his resignation, which is December 31 of this year. I have been in the office since about November 1.

Mr. ANTHONY. Are you going to take over all the work at the beginning of the next calendar year?

Col. HARTSHORN. Yes, sir.

Mr. ANTHONY. Did you prepare the estimates that are in this bill for the operation of that office?

Col. HARTSHORN. No, sir; but I am familiar with them.

Mr. ANTHONY. How much are you asking for the operations of the sales office?

Col. HARTSHORN. We are asking for the office of the director of sales alone \$68,680.

Mr. ANTHONY. The bill provides for an appropriation of \$100,000 for this item.

Col. HARTSHORN. Yes, sir. Col. Hull will speak to you with reference to the part of the \$100,000, with which he is concerned for the Claims Board, and Maj. Pierson will tell you about the expenses in connection with the liquidation matters.

Mr. ANTHONY. Who can tell us for what purposes they are going to use the other \$32,000?

Col. HARTSHORN. Col. Hull, in charge of the War Claims Board, and Maj. Pierson, who is at present in charge of the external relations branch of the supply division.

Mr. ANTHONY. That is a new organization.

Col. HARTSHORN. No, sir; it is carrying on the operations of the Parker Commission in France exclusively.

Mr. ANTHONY. One applies to the payment of domestic claims and the other to the settlement of foreign claims?

Col. HARTSHORN. Yes, sir.

Mr. ANTHONY. And the remaining \$32,000 out of the \$100,000 to cover the expenses of the operations of those two offices?

Col. HARTSHORN. Yes, sir.

Mr. ANTHONY. Now, if you can tell us we would like to know, in detail, how you are going to use the \$68,000 you are asking for your office?

NUMBER OF EMPLOYEES.

Col. HARTSHORN. I have here a statement which can be put in the record showing the employees on duty in the office of the director of sales on September 30 of this year and the number we estimate as necessary for the fiscal year 1922.

Mr. ANTHONY. Tell us briefly how many employees you have at present and how many you will want for the next fiscal year?

Col. HARTSHORN. At the beginning of the present calendar year we had 173 civilian employees. We have at present 53. We desire for the coming fiscal year a total of 46.

Mr. ANTHONY. That is clerical help?

Col. HARTSHORN. There are 43 clerical and 3 for duty in the advertising office of the Director of Sales. They are specialists and their function is to place all the advertising in connection with the sale of surplus property for the different supply branches of the War Department. They are being maintained for that purpose in the office of the Director of Sales.

Mr. ANTHONY. What are those men?

Col. HARTSHORN. They are advertising specialists.

Mr. ANTHONY. Are they commissioned officers?

Col. HARTSHORN. No, sir; they are not. It is impossible, as far as I am able to ascertain, to obtain commissioned officers with the necessary qualifications for that kind of work.

Mr. ANTHONY. How much money are you going to require to pay the 43 employees?

Col. HARTSHORN. That amount is \$57,080. The remaining \$11,600 will be exclusively for the maintenance of this so-called sales-promotion section.

Mr. ANTHONY. What will be the pay of the highest-paid civilian employee?

Col. HARTSHORN. The chief of the branch will receive \$5,000, and there will be one assistant at \$3,600.

Mr. ANTHONY. Who will be the chief of that office?

Col. HARTSHORN. The intention is that Mr. Willoughby, the present chief, will continue, subject to his personal arrangements.

Mr. ANTHONY. Do you desire to give us the figures concerning the amount of goods you have on hand and which it is intended to sell next year?

Col. HARTSHORN. Yes, sir.

VALUE OF SURPLUS MATERIAL ON HAND.

Mr. ANTHONY. What is the value of the goods on hand which have been declared surplus that are still to be sold?

Col. HARTSHORN. This statement is an approximation only and it is based on incomplete inventories. The total as of November 30 is \$192,000,000, and it is divided roughly as follows: Ordnance, \$55,000,000; surplus property branch of the Quartermaster General's Office, \$115,000,000; water transportation division of the Quartermaster General's Office, \$4,500,000; Air Service, \$13,000,000; Chemical Warfare Service, \$2,300,000; Engineer Corps, \$2,300,000, making a total of \$192,000,000.

Mr. CRAMTON. What are those figures based on, the cost price?

Col. HARTSHORN. Yes, sir; the cost to the Government.

SALES AND TRANSFERS.

Mr. ANTHONY. What is the value of the goods sold?

Col. HARTSHORN. I would like to put into the record a statement of all sales and transfers up to and including December 10, which is the latest date of the latest report.

Mr. ANTHONY. That is all from one department to another?

Col. HARTSHORN. This covers sales to agencies without the Government.

Mr. ANTHONY. For which you receive cash?

Col. HARTSHORN. Yes, sir; ultimately. Some are on a deferred-payment basis. The total expressed in cost to the Government amounts to \$1,105,351,748.

Mr. SLEMP. That is from the beginning of the sales organization?

Col. HARTSHORN. Yes, sir; up to December 10 of this year.

Mr. SLEMP. That covers the entire time of the life of your organization?

Col. HARTSHORN. Yes, sir.

Mr. ANTHONY. Is that one year's operation?

Col. HARTSHORN. No, sir; it is since this organization was set up.

Mr. ANTHONY. That amounts to a little over \$1,000,000,000?

Col. HARTSHORN. Yes, sir, and does not include transfers to other executive departments of the Government.

Mr. ANTHONY. If I remember correctly, a year ago it was stated that you had \$1,900,000,000 worth of goods to sell. If you have only sold a little over a billion dollars worth and only have remaining \$192,000,000 worth, what has become of the other \$700,000,000 worth?

Mr. MORSE. The total disposed of to date is approximately \$1,600,000,000, including contracts for sale which have not yet been reported on the weekly report of sales, and including transfers of approximately \$136,000,000 worth, principally without funds, to other governmental departments under various acts of Congress. The total disposed of to date has cost the Government approximately \$1,600,000,000. We know where there will be declared a surplus in the next few months of several million dollars worth more of material, expressed in cost to the Government.

War Department property located in United States disposed of under supervision of director of sales as of Oct. 29, 1920.

	Return.	Cost.	Recovery.
			Percent.
Sales prior to Dec. 1, 1918.....	\$123,000,000	\$154,000,000	
Sales Dec. 1, 1918 to Oct. 29, 1920 including transfers with funds to other Government departments, unknown cost (estimated at same recovery as known cost, i. e., 62 per cent).....	775,550,000	1,242,500,000	62
Estimated uncompleted portions of contracts not included in above figures.....	39,000,000	155,000,000	
Total sales and transfers with funds.....	937,550,000	1,551,500,000	
Transfers without funds to other Government departments:			
Transfers reported.....	\$76,800,000		
Authorized but not reported.....	57,700,000	134,000,000	
Total sales, transfers with and without funds.....	1,071,550,000	1,685,500,000	

¹ Estimated.

Mr. ANTHONY. So that there is about half a million dollars' worth of material which has practically been sold, but the sale of which has not yet been consummated?

Mr. MORSE. Including transfers. The contracts for sale have been made, but the actual reports have not yet come through.

Mr. ANTHONY. So they have been stricken from the list of supplies on hand?

Mr. MORSE. Yes.

Mr. ANTHONY. Although you have not received either money or promises to pay for them?

Mr. MORSE. We have received promises to pay, but not the money.

Mr. ANTHONY. Are those shown in your report?

Col. HARTSHORN. The transfers are shown in this report.

Mr. SLEMP. Mr. Anthony asked whether the \$500,000,000 of difference between the total and the amount sold and not transferred was shown in your report?

Mr. MORSE. We have a report which does show that—showing the distribution of it.

Mr. ANTHONY. You said you have only \$192,000,000 worth of goods that have been declared surplus?

Col. HARTSHORN. That is an estimate based on various incomplete inventories, and is not trustworthy at all.

Mr. ANTHONY. Have you a complete inventory or list of War Department goods that have been declared surplus in the different branches of the War Department?

Col. HARTSHORN. No, sir; we have not at present. That list was maintained up to July 1 of this year in as complete form as was possible, considering the state of the inventories at that time; but then that work was discontinued because of a reduction in personnel, and it has not been kept in precise form since that time.

Mr. ANTHONY. The reason I asked that is that in my mail this morning I received a letter from a man who bid recently on a supply of cots for the Army, and he found out after he had submitted his bid that the Army was advertising for sale the very same thing.

Mr. MORSE. I think that is not quite possible.

Mr. ANTHONY. He said he bid on cots and found afterwards, or was informed, that the Army was trying to sell the very same thing he was bidding on.

Mr. MORSE. I should doubt that without running it down pretty carefully, because we have run down a number of statements of that kind. For instance, a while ago we had a large advertisement for the sale of underwear that was in the paper, and on the back of that same page was a request from the Quartermaster General for bids on underwear. On the face of it it looked like they were buying the same thing they were selling. But, as a matter of fact, they were buying a high grade of underwear for sale to commissaries for the use of officers, and we were selling the underwear purchased during the war for the men. In connection with the cots, I know that we are selling something like 600,000 to 1,000,000 of the steel cots which were purchased for the barracks, and I can not conceive of the Army buying any of those cots. In connection with the Gold Medal cots, which is a field cot, I am not so sure that they may not be.

Mr. ANTHONY. Is the Army advertising for new cots at this time?

Mr. MORSE. I could not answer that. Apparently they are, if the man you refer to has put in a bid on them.

Mr. ANTHONY. Are you at work in your department getting up an inventory or list of the surplus?

Col. HARTSHORN. No, sir; it is not our function to do that. The property which is declared surplus is turned over to us by the bureaus of the War Department, and it is their function to determine what is and what is not surplus.

Mr. ANTHONY. So you have not even a complete list of the supplies on hand?

Col. HARTSHORN. No, sir; only in a most general way. I have here a statement of the condition of affairs in the Ordnance Salvage Board, which shows that they had on hand the following material at an original cost value of \$54,380,000.

Estimated surplus, by classes, held by Ordnance Salvage Board Nov. 30, 1920.

	Cost value.
Building materials.....	\$1, 630, 000
Chemicals, acids, and explosives.....	3, 700, 000
Ferrous metals and scrap.....	10, 800, 000
Nonferrous metals and scrap.....	12, 400, 000
Plant facilities.....	4, 100, 000
Machinery and engineering equipment.....	4, 600, 000
Machine tools.....	4, 650, 000
Other materials.....	12, 500, 000
Total.....	54, 380, 000

Mr. ANTHONY. To your knowledge, has an inventory or any kind of a practical list of supplies on hand in the various bureaus ever been attempted to be gotten up or furnished to the sales department?

Col. HARTSHORN. As I stated previously, I do not believe a trustworthy inventory is in existence.

Mr. ANTHONY. Would it not be very important to have something of that kind, Colonel?

Col. HARTSHORN. I think it would be if the bureaus had the personnel with which to do it. I think you can charge that off to demobilization. Inventories would be started and then the officers who were doing that work would be discharged or sent on other duty and the clerical personnel would be separated from the service, and things would stop.

ACTIVITIES OF THE BUREAU.

(See pp. 51, 72.)

Mr. ANTHONY. Are the bureaus of the War Department also selling surplus goods?

Col. HARTSHORN. Yes, sir; they have direct charge of the sale of surplus goods.

Mr. ANTHONY. So your department is selling surplus goods and the various bureaus of the War Department are also selling surplus goods?

Col. HARTSHORN. Yes, sir. I would like to make at this time, Mr. Chairman, a brief statement of the functions of the office of director of sales. The office of the director of sales was created by order of the Secretary of War in 1918, for the purpose of coordinating and supervising the activities of the several supply branches of the Army

in disposing of the surplus material on hand at that time, and for the purpose of regulating through the supply branches of the Army the disposal, by means of sale or transfer, of future surpluses. The procedure in the office of the director of sales is based upon policies announced from time to time by the office of the Assistant Secretary of War, and for administrative purposes the office is attached to the supply division, General Staff.

In general, the office has two main functions; the first being the coordination and supervision over sales activities of the supply branches of the Army; and the second consisting of the regulation of the disposal of surpluses by other means—that is to say, the control of the distribution of surplus property under the various acts of Congress directing transfers to other executive departments and agencies of the Government.

For the first purpose stated above the office is subdivided into several commodity sections, as follows: Plant facilities section, railway and contractors' equipment and building materials section, quartermaster stores section, machine tools section, and export sales section. It is the duty of these sections to inform the Director of Sales concerning prices and other market conditions pertaining to commodities falling under their respective jurisdiction, and to represent the Director of Sales in connection with certain duties which have been delegated to them under his supervision. Briefly, it is the duty of these sections to keep the Director of Sales so informed that he may be in position at all times to render decisions promptly upon questions of sales policy presented by the supply branches.

In connection with sales of surplus property there is also maintained in the office of the Director of Sales a sales promotion section. It is the function of this section to prepare advertising copy for the presentation of any sales project entered into by the supply branches of the Army and, with the approval of the branch concerned, to make all arrangements for the placing of paid advertisement and also news-column publicity relating to sales projects. This section has another very useful function in obtaining for the Director of Sales, from trade and similar journals, a variety of opinions as to market prices covering an extensive variety of property. The advantage of maintaining a central agency of this character in the office of the Director of Sales, instead of providing for such service in each of the several branches of the Army, is at once apparent, since the existing procedure results in a considerable saving. The facilities maintained in the sale-promotion section are at all times at the disposal of the supply branches of the Army.

In the discharge of his duties it is necessary for the Director of Sales to approve, or otherwise act upon, all contracts entered into by the selling branches, and for the purpose of informing him as to the legal sufficiency of agreements entered into there is maintained in the office a so-called contract section, which reviews for the Director of Sales all contracts submitted by the selling branches for his action. The section also acts in the general nature of legal advisor to the Director. It constitutes an added check on bureau contracts and, as such, has been a most useful safeguard.

For the purpose of insuring compliance with the several enactments directing the transfer of surplus War Department supplies to other executive departments of the Government there is maintained

a transfer and inventory section, which is the clearing house for all surplus property of the War Department. This section, upon receipt of a declaration of surplus, posts the same for 21 days, during which period of time it is subject to the requisitions of the several branches of the War Department, and also of the other executive departments and agencies of the Government. This procedure has had the effect of furnishing all the departments with information which has resulted in the transfer of property already in the possession of the Government, with an attendant saving of funds which would have been spent had the supplies so transferred been purchased. The value of the property transferred in connection with the operation of this section has amounted to \$130,363,860.

There is also maintained an administrative section for the purpose of facilitating the dispatch of the business of the office and for the maintenance of files and records.

EXPENDITURES FOR ADVERTISING.

Mr. ANTHONY. How much have you spent for advertising during this year?

Col. HARTSHORN. The total appraised market value of property advertised was approximately \$1,000,000,000, and the cost of advertising up to November 20, 1920, was approximately \$645,000, or less than seven-tenths of 1 per cent.

Mr. ANTHONY. Do you mean to say that you have spent \$645,000 on newspaper advertising?

Col. HARTSHORN. I am so informed.

Mr. Sisson. It was not entirely spent on newspaper advertising was it?

Col. HARTSHORN. Not altogether.

Mr. Sisson. You sent out lists to the trade, did you not? You sent out lists stating that on a certain day a certain sale was going to be made; you had a list of the articles to be sold and a description of the articles sent to the trade. That was a part of your advertising, too, was it not?

Col. HARTSHORN. Yes; that is also done. In order that all individuals, who might for any possible reason, be interested in these transactions, may be advised concerning these sales, it has been the policy of the office to advertise very extensively to secure the best competition possible and in connection with such competition a corresponding raising of the prices.

Mr. Sisson. The reason I made that statement was that there comes to my office occasionally a list.

Col. HARTSHORN. Yes, sir; that is part of this advertising bureau work.

Mr. Sisson. I send that list to some one in my district who may be interested, and if I do not have anybody in my district who is interested I send it to somebody in my State who may be interested, and I know several purchases have been made from the Government in that way.

Mr. ANTHONY. How much of the \$645,000 was expended for newspaper advertising?

Col. HARTSHORN. That figure I will have to put into the record. \$440,458.87 for business and trade publications and \$185,019.82 was spent with newspapers.

Mr. MORSE. The greater portion of the amount was spent for trade-paper advertising rather than in daily newspaper advertising. In general we are authorized to spend up to one-half of 1 per cent of the estimated sale value of the property in advertising, and we can show you a majority of sales that have been made in which we got an increased price, due to the advertising we did, and the increased price we got will more than pay the entire expense of the advertising which has been done.

Mr. Sisson. Let me make this suggestion also: If you did not fairly and properly advertise these sales of property, you would be constantly open to the charge of favoritism. I think that is a protection not only in dollars and cents to the Government, but certainly a protection against the charge that might be made by the public or in Congress that anybody connected with it was endeavoring to make secret sales.

Mr. MORSE. Let me give you one instance of the effect of advertising. It has been the Secretary's policy to get as directly as possible to the user the surplus property which we had. That does not mean that we have not sold a lot of it to speculators and middlemen, but it has been the policy to get as much of it directly to the ultimate user as possible. I have in mind a list of the so-called "general supplies" which were advertised, and that material thus advertised reached 26 States and 58 different communities, and the property went to the users without any question. In that term "users" I am including the retail stores selling directly to the consumer, manufacturers using the material in their product.

AUCTION SALES.

Mr. ANTHONY. Was much of this stuff sold at public auction to the highest bidder?

Mr. MORSE. We sell it in every conceivable way. It all depends on the property and the location of the classes of it. The unserviceable automobiles, for instance, have been sold entirely by auction. We have staged a number of big clean-up auctions to clean up a district, to clean up the odds and ends. In connection with the ordnance supplies, for instance, we had a sale in the Boston district of leather, scrap metal, machine tools, scrap textiles, etc.

Mr. ANTHONY. When an automobile is declared surplus at a military post do you sell it through your department, or is it sold by the military authorities?

Mr. MORSE. It is reported by the motor-transport branch of the Quartermaster Corps as surplus to our office, where it is held for three weeks, subject to requisitions from other executive departments. At the end of that time, if there is a sufficient number of them at one certain place, there is an auction put on under the direct supervision of the motor-transport branch of the Quartermaster Corps.

MOTOR VEHICLES.

Mr. ANTHONY. Can you tell us how many automobiles have been sold by you during the past year?

Mr. MORSE. The War Department has sold approximately to the public 10,000 unserviceable cars and trucks. We have transferred

to other executive departments 34,641. When I am talking about motor vehicles, that includes, bicycles, motor cycles, trailers, motor cars, trucks, ambulances, etc. It is an inclusive term. It does not simply mean passenger automobiles and trucks.

Mr. ANTHONY. The vehicles you sold were used vehicles, largely?

Mr. MORSE. They were unserviceable vehicles.

Mr. ANTHONY. And had been used by the Government?

Mr. MORSE. Yes.

Mr. ANTHONY. Those you transferred to the various departments and to the local organizations, counties, cities, and States were taken out of your surplus stock of new machines?

Mr. MORSE. A great many of those also were used. Every car that was reported in was offered to them. They sent their inspectors out to decide whether they wanted them or not. They took some cars on which they had to spend some money.

Mr. ANTHONY. Have you any automobiles or trucks declared surplus?

Mr. MORSE. There are not any automobiles or trucks for sale to-day, except that there may be a few scattered unserviceable cars, but no quantity.

Mr. ANTHONY. None in any quantity?

Mr. MORSE. No.

Mr. ANTHONY. Have you any idea of the number held in reserve?

Mr. MORSE. I was unofficially informed two or three days ago that there were approximately 86,000 motor vehicles. I am including in that bicycles, motor cycles, trailers, motor cars, trucks, etc.

Mr. ANTHONY. Can you give us an idea of the proportion of trucks, and bicycles, and automobiles, etc.

Mr. MORSE. I have not seen an inventory. The motor transport branch of the Quartermaster General's Office can give you the detail figures.

Mr. ANTHONY. Has there been any discretion in your office as to whether any of that supply would be declared surplus during the present year.

Mr. MORSE. No, sir. We have been told that the new tables of organization which have been recently prepared and submitted to the various branches of the Army will mean, in connection with the motor vehicles, a declaration of further surplus within the next two or three months of something like 50,000 vehicles of all the kinds mentioned. Some of those, we are also advised, will be knocked down by the department in order to obtain necessary spare parts for maintenance purposes.

Mr. ANTHONY. New vehicles will be broken up?

Mr. MORSE. No, sir.

Mr. ANTHONY. Old vehicles.

Mr. MORSE. Yes, sir. It is proposed to sell all of the so-called nonstandard vehicles that the Army may have. That does not necessarily mean that they will keep all of what are known as the standard B truck, for instance, but there are certain makes of trucks and cars that they have determined on as standard trucks and cars, and they propose to replace everything that is nonstandard and so what they designate as nonstandard vehicles.

Mr. ANTHONY. What do you call standard cars?

Mr. MORSE. The Motor Transport Branch—

Mr. ANTHONY (interposing). Do they include the so-called Liberty truck?

Mr. MORSE. There are others. There is included in that also—I am speaking from memory—trucks like the Packard, the Pierce, the White, and others. In other words, they have figured out a group, including the Liberty truck, of the so-called standard trucks, just as they have picked out the Dodge and the Cadillac as the standard passenger cars, and they have picked out one or two makes of motor cycles as standard motor cycles.

ACTIVITIES OF THE BUREAU.

(See pp. 46, 72.)

Mr. ANTHONY. Your bureau sells surplus goods declared surplus by the different bureaus. To what extent do these supply bureaus also sell surplus material?

Mr. MORSE. Let me correct you to this extent. Our department in only a few cases has actually consummated any sales. We have consummated sales made to foreign Governments. In that connection let me say that we do that because it seems advisable to head the foreign negotiations into one point, where we could consult with the State Department and the Treasury Department in connection with that and with the Secretary of War, as is called for in almost every instance.

Mr. ANTHONY. So you merely arrange the preliminaries in the majority of sales and the supply bureaus carry out the negotiations to their conclusion?

Mr. MORSE. We do not negotiate the sale.

Mr. ANTHONY. Who does that?

Mr. MORSE. The supply bureaus.

Mr. ANTHONY. Why could not they carry on the whole transaction for the sale of the surplus goods in this country? What is the necessity of keeping this bureau in operation during the next year, inasmuch as you have practically sold the bulk of your surplus stocks?

Mr. MORSE. I wish I was as optimistic as you are.

Mr. ANTHONY. You are about to leave the service, probably because you have completed your job. You have sold the largest part of the surplus stocks?

Mr. MORSE. That is not the only reason. I believe this, if Congress, as some of the Members mentioned, reduces the size of the Army to 175,000, it will necessitate a further declaration of surplus materials now held in the war reserve, which will largely increase the surplus which will be available for sale.

Mr. ANTHONY. Even in that case, why could not the Ordnance Department, which has a large number of intelligent officers, arrange to sell their surplus? Why could not the Quartermaster Department arrange to sell their surplus, and the Medical Department do the same, and the other departments which have surplus do the same thing? They are in touch with the market.

Mr. MORSE. They do sell it to-day, but the Director of Sales office has a central sales bureau which has what are, in my mind, a number

of other important functions to perform. First, it is a central point, to which all surplus, as declared, is referred, and which becomes available first for transfer to all the other War Department branches. They come there every day, a representative of the Engineers, a representative of the Quartermaster Department, and of the Signal Corps, and of the other branches, come to our inventory section and go over the previous day's report to see what material there is that they can requisition.

In the second place, through that section we are transferring some \$136,000,000 worth to other executive departments of the Government. There is somebody in charge of handling the requisitions of this material. That is the one point of contact for all the surplus reported. In addition to that we coordinate the sales of similar material between departments, keeping the departments from bidding against one another for the sale of some particular surplus. We have been able in some instances to assist materially in the service of finding markets, in getting larger returns for the goods through the organization that we maintained.

We have maintained that central advertising bureau rather than split that up between five or six different services, the advertising being prepared there and being submitted through them for their approval and the bills being routed through that one point for distribution, and I certainly feel, without any personal concern about it at all, because I am leaving very soon, that it will be a mistake to do away with that central point.

Mr. SLEMP. Would you favor minimizing the activities of the various bureaus and increasing the activities of that central organization?

Mr. MORSE. Not at this time: it is too late in the game.

Mr. SLEMP. You expect your organization to go along at full speed and all the bureaus to go along at full speed?

Mr. MORSE. We are not duplicating their work.

REDUCTION IN PERSONNEL.

Mr. SLEMP. You have \$175,000,000 worth of goods to sell at the present time, taking their face value, and you have sold in the last two years about \$1,000,000,000 worth, which is \$500,000,000 worth a year. You have reduced your force 50 per cent.

Col. HARTSHORN. More than that, sir.

Mr. SLEMP. I take your figures: you had 173 this year, according to your statement, and you want 43 next year.

Col. HARTSHORN. It has been reduced from 173 to 67.

Mr. SLEMP. You have 67 there now, and next year you want 43.

Col. HARTSHORN. Yes, sir.

Mr. SLEMP. So I say you are still retaining more than 50 per cent of your force next year to sell about what would correspond to 30 per cent of the total amount of material you had?

Col. HARTSHORN. That is, the overhead.

Mr. Sisson. And you have a lot of advertising work that you have built up and that will be good for the coming year?

Mr. MORSE. We have reduced our civilian help from 173 to 43.

Mr. SLEMP. But you have reduced the amount on hand from \$1,000,000,000 to \$175,000,000?

Mr. MORSE. Yes; but that is about in proportion. We have reduced it to about 25 per cent, and we have only reduced the amount to about 20 per cent.

Mr. ANTHONY. Does that lead to the conclusion that we could cut off that work in the various bureaus and put it all in your organization?

Mr. MORSE. It can not be done without setting up an enormous organization throughout the field, because if you take the activities of the field work you will find that they extend to every post there is in the country, pretty nearly. The Quartermaster General has control officers at six different points, with connections extending to every warehouse, camp, and post. The Ordnance Department has a number of districts at the present time. On the 1st of June they had about 1,000 different points where they had material located. This number has been materially reduced, due to work which they have done in the last few months, but the fact remains that the force on the field work in the War Department to-day—

Mr. ANTHONY (interposing). Your office is a coordinating office?

Mr. MORSE. Absolutely, with the exception of the transfer and inventory work and the advertising work. But it is a fact, in my opinion, that the organization on sales work in the Army to-day is way below the efficient point of operation and is costing the Government hundreds of thousands of dollars in losses.

AMOUNT RECEIVED FROM SALES.

Mr. SLEMP. What did you get for that \$1,100,000,000 worth of material?

Mr. MORSE. We got 61 cents on the dollar.

Mr. SLEMP. You got \$600,000,000?

Mr. MORSE. Yes.

Mr. SLEMP. How much of that did you get in cash and how much did you get in notes?

Mr. Sisson. In other words, you have gotten about \$600,000,000 for the property sold through your office up to date?

Mr. MORSE. Yes. Between \$52,000,000 and \$53,000,000 on an average of six years' credit.

Mr. ANTHONY. The total last year reported was \$1,900,000,000, and you say—

Mr. MORSE (interposing). For sale.

Mr. ANTHONY. You sold about \$1,100,000,000 worth of those goods?

Mr. MORSE. We have disposed of goods of that cost value at \$1,600,000,000.

Mr. ANTHONY. And \$500,000,000 worth you have contracted to sell, but have not finally completed the sale?

Mr. MORSE. No; because in that you include all your transfers.

Mr. ANTHONY. And the transfers. What have you gotten for the \$1,100,000,000 of actual sales—how much money have you gotten to show for that and how much in promises to pay?

Mr. MORSE. It is approximately \$600,000,000.

Mr. ANTHONY. Of real money?

Mr. MORSE. To date, and about fifty-two-odd million on time.

Mr. SLEMP. What do your contracts for the \$600,000,000 involve?

Mr. MORSE. The majority of that is not in excess of commercial credit; that is, 90 days.

Mr. SLEMP. That is on a 60 per cent basis also?

Mr. MORSE. Approximately so. You can not maintain that percentage from now on.

Mr. SLEMP. Does that include sales of goods in France?

Mr. MORSE. No, sir.

Mr. SLEMP. That is exclusively sales in this country?

Mr. MORSE. Yes, sir.

Mr. SLEMP. You had nothing to do with the sales in France?

Mr. MORSE. We had nothing to do with that.

SALES OF REAL ESTATE, BUILDINGS, CANTONMENTS, ETC.

Mr. SLEMP. Does this have anything to do with the plants in the United States, like the picric-acid plant?

Mr. MORSE. Yes, sir.

Mr. SLEMP. Did you negotiate the sale of the Nitro plant?

Mr. MORSE. Yes; it was negotiated under our supervision; a good deal of that was carried on in our office, in a coordinated negotiation between the Director of Sales, the Ordnance Department, and the Real Estate Division and the Assistant Secretary's office. In connection with the Nitro plant, Mr. Crowell supervised a great deal of those negotiations himself.

Mr. SLEMP. Then your proposition involves not only surplus material but cantonments, real estate, and anything the Government decides, through its executive department, it does not need?

Mr. MORSE. Yes, sir.

Mr. ANTHONY. Have you sold any real estate?

Mr. MORSE. We have supervised the sale.

Mr. ANTHONY. How much has that amounted to?

Mr. MORSE. In what sense are you using the term real estate—as referring to land or buildings and fixtures?

Mr. ANTHONY. Land and buildings.

Mr. MORSE. There has been reported on sales of that material to our office, real estate, including fixtures, something over \$90,000,000 in cost to the Government, on which we have received a return of about 17 or 18 per cent on the average.

Mr. ANTHONY. Of its value?

Mr. MORSE. Of its cost.

Mr. ANTHONY. Those sales were actually conducted by the Quartermaster Department, were they not?

Mr. MORSE. No; not all of them. The Ordnance Department conducted the major portion of that under our supervision.

Mr. ANTHONY. The real estate section of the Quartermaster Department, then, does not sell real estate?

Mr. MORSE. The Ordnance Department was given a list of the plants which were buildings and facilities, in which land was not included. In other words, they were built on other people's land. They were given that list to sell themselves, and that is included. That is why I asked you in what sense you were using the term real estate. That property included land and buildings, and in connection with the land the negotiations for the sale of the land are conducted.

by the real estate branch or the construction branch of the Quartermaster General's office.

Mr. ANTHONY. We have in the Quartermaster General's Department a real-estate section in which there are 30 or 40 officers who are supposed to be real-estate experts. They are consulted when we buy real estate. Why should they not have charge of the sale of real estate?

Mr. MORSE. They do, sir.

Mr. ANTHONY. Why are they not competent to sell it without the help of the sales division organization which you represent?

Mr. MORSE. The inventory or declaration of surplus for that particular real estate must be reported or made available for transfer to other departments, and it is referred to our office. It comes from the real estate to our office with a recommendation from them as to how they want to sell it. It is held in our office for three weeks and the papers are then sent back to them with an indorsement to proceed with the sale.

There may be some reason for changing the date of the sale, there may be some reason of policy from other quarters for changing the particular terms of the sale, or we may have some other suggestions to make, but it is referred back to them, the advertisements of the sale being prepared in the advertising section of this office, and then the operations are continued by them. We have one man, and they have one man, who has been familiar with appraisal work during a long period of years on property of that kind, who has assisted all the services in finding buyers, or who assists in the negotiations. He was called upon to assist, and that is as far as we go toward conducting the actual sale.

EMPLOYEES PAID FROM PROCEEDS OF SALES.

Mr. ANTHONY. Now, Mr. Morse, it has been said here that something over \$600,000 was used for advertising during the past year.

Mr. MORSE. Yes, sir.

Mr. ANTHONY. From what appropriation did you get that money?

Mr. MORSE. That was paid out of the proceeds of sales.

Mr. ANTHONY. Under what authority do you spend that?

Mr. MORSE. The authority of the Comptroller of the Treasury.

Mr. ANTHONY. Is there any act of Congress that permits you to spend that amount of money?

Mr. MORSE. Yes, sir; there is an act of Congress that permits certain deductions to be made from proceeds of sales.

Mr. ANTHONY. It looks like that is a pretty wide-open authority to permit you to spend all the necessary money to make a sale and take it out of the proceeds before it goes into the Treasury.

Mr. MORSE. That is limited to certain direct expenses. None of the overhead is taken out, but only the direct expense that is chargeable to that specific sale can be taken out, and we can only take those expenses out with the approval of the Comptroller of the Treasury.

AUTHORITY FOR PAYING EXPENSES FROM PROCEEDS OF SALES.

1. The act of June 8, 1896 (29 Stat., 268), provides—

"That from the proceeds of sales of old material, condemned stores, supplies, or other public property of any kind, before being deposited into the Treasury,

either as miscellaneous receipts on account of 'proceeds' of Government property' or to the credit of the appropriations to which such proceeds are by law authorized to be made, there may be paid the expenses of such sales, as approved by the accounting officers of the Treasury, so as to require only the net proceeds of such sales to be deposited into the Treasury, either as miscellaneous receipts or to the credit of such appropriations, as the case may be."

2. This act has been interpreted by Treasury Department Circular No. 6 of 1897 (3 Comp. Dec., 744), as follows:

"The expenses of sale payable from gross proceeds are such as pertain directly to the sale in question, such as auctioneer's fees, cartage to place of sale, cost of inspection, if an inspector be hired for that purpose, etc."

3. In a decision to the Secretary of War under date of September 19, 1919, the Comptroller of the Treasury stated that "the cost of advertising is also a legitimate expense to be charged against the proceeds of sales, but these expenses of advertising must be charged directly against the proceeds of the articles sold."

Mr. ANTHONY. So you are turning back into the Treasury the net proceeds of the sales and not the gross proceeds?

Mr. MORSE. There are certain expenses taken out of the gross proceeds in some instances.

Mr. ANTHONY. This \$100,000 you are asking us to appropriate for your office next year will not by any means show the gross expense of conducting your bureau?

Mr. MORSE. It will show the gross expense of conducting our division itself, but it will not show the gross expense of the sales work of the Army.

Mr. ANTHONY. Do you pay the traveling expenses of the employees out of the proceeds of these sales?

Mr. MORSE. No, sir; that comes out of the travel appropriation.

Mr. ANTHONY. What other items besides those do you take out of the proceeds before they go into the Treasury?

SUPPLY BRANCHES OF THE ARMY.

Mr. MORSE. The services deduct such expenses as loading or crating or whatever is necessary to prepare the material for shipping. That is practically all.

STORAGE EXPENSE.

Mr. ANTHONY. If I remember correctly, we were called upon in the last year or two to make very large appropriations for taking care of property of this class.

Mr. MORSE. For storage; yes, sir.

Mr. ANTHONY. Taking care of it and preparing it for sale. In the Ordnance Department we allowed about a million dollars for that purpose two years ago, and it seems to me that large sums like \$600,000 ought not to be used for public purposes without some direct authority.

Mr. MORSE. Mr. Anthony, I would like to say it would be a very serious mistake in my opinion to stop the public advertising of surplus property and the limitation of one-half of 1 per cent of the sales value for advertising is exceedingly small.

Mr. CRAMTON. You gave us in that connection the appraisal value and the advertising expenses. What was the sale price? What was realized? When you are comparing the cost, it should be compared with the price realized rather than the appraised value.

Mr. MORSE. I can not give you the exact figures, but I have checked it up this way, that the actual expense of advertising against the sales made has been less than one-quarter of 1 per cent; \$600,000 is only seven one-hundredths of 1 per cent of the appraised value.

Mr. CRAMTON. Of the \$1,600,000,000?

Mr. MORSE. A billion dollars worth was advertised. I kept a very careful check of the cost of that material, because I have watched it very carefully from that angle.

Mr. CRAMTON. With the \$190,000,000 you speak of remaining, how much of that is entirely free for sale and how much of it is covered by contract for its sale through agents?

Mr. MORSE. This is all free for sale and transfer.

Mr. CRAMTON. None of it is covered by contracts with agents?

Mr. MORSE. No; the estimate of what is at present——

CONTRACT WITH UNITED STATES HARNESS CO.

Mr. CRAMTON (interposing). Take, for instance goods such as those covered by your contract with the United States Harness Co. How do you classify those goods?

Mr. MORSE. I classify those as sold, because there is a direct obligation to take those goods within a certain period of time.

Mr. CRAMTON. Your contract with that concern does not bind them to buy anything, does it?

Mr. MORSE. Yes, sir; it binds them to buy that material and act as our selling agent.

Mr. CRAMTON. Binds them to act as your selling agent at what price?

Mr. MORSE. At a predetermined price.

Mr. CRAMTON. Tell us something about that contract.

Mr. MORSE. Yes, sir; we have made a number of contracts during the last three years of a similar nature, and every one of them has proved, in my opinion, satisfactory, or valuable from the Government standpoint.

The principle of the contract is this: The purchaser agrees to pay the Government within a certain period of time for all the material, taking a specified portion of the total every three months or every six months, in whatever way we place that, so that he can not wait until the last minute to take it all; he agrees that the entire quantity will be disposed of within a certain period of time and a return to the Government of not less than a minimum price.

But further, in connection with the harness contract, he agrees that he will return to the Government a percentage of his gross sales price, which must in all instances be at least equal to the predetermined price, the fixed price, or more. For instance, if you have a piece on which he guarantees a return of \$1, in any event, to the Government, within a certain period of time, if he sells for \$2, he agrees to return 90 per cent of that \$2 to the Government, and we would then not have a dollar but we would have \$1.80.

But we are also protected to the extent of knowing when we enter into the contract of that kind that as far as the sale of that material goes, assuming that the contractor carries out his obligation—and they have in most instances—the material is disposed of and it will

be turned into cash at not less than a minimum figure within a certain period of time.

Mr. CRAMTON. Does the contract cover certain goods?

Mr. MORSE. Yes, sir.

Mr. CRAMTON. What are those goods?

Mr. MORSE. Horse equipment, harness, saddles, and equipment of that kind.

Mr. CRAMTON. What was their appraised value?

Mr. MORSE. The harness and horse equipment—the cost value was about \$15,000,000, and we will probably get about, not over 15 per cent recovery on that.

Mr. CRAMTON. You say the cost value is about \$15,000,000, and your minimum under the contract is how much?

Mr. MORSE. The minimum on all materials have not been determined, but the minimum probable return will be about, I should estimate, \$3,000,000.

Mr. CRAMTON. As I understand it, this concern, organized for this purpose, was largely made up of men in the harness business, wholesalers and manufacturers?

Mr. MORSE. The concern is made up of men who have been or are in the harness and leather business.

Mr. CRAMTON. They have bound themselves to take these goods from you within a certain period of time, paying a minimum of \$3,000,000, and are going to sell them, and if sold within a certain period of time at more than the minimum they pay you an additional amount, corresponding with the price they receive for them. But if they do not sell them within the time specified, they must take them anyway at the minimum price?

Mr. MORSE. Yes, sir.

Mr. CRAMTON. In that event, of course, the Government would have no opportunity for getting any increased price. They simply take them and you will have the expiration of the time set.

Mr. MORSE. The biggest check we have on that is this, that they are obliged to take a certain amount at certain periods of time and pay for that.

Mr. CRAMTON. They simply take them and hold them until the expiration of the time, and then what price they get for them when they sell them the Government would get no benefit of.

Mr. MORSE. I suppose they could do that, but it would not be a good business proposition for them, for that amount of money involved.

Mr. ANTHONY. Was not the purpose of such a contract on the part of these wholesalers and manufacturers of leather and harness to distribute these goods among themselves to prevent them going to the general market?

Mr. MORSE. No.

Mr. CRAMTON. I think your contract has a provision that none of it shall go to jobbers. What was the reason for that?

Mr. MORSE. We wanted to get them as directly as possible to the consumers.

Mr. CRAMTON. And for that purpose the man having the contract furnished you one or two hundred special salesmen to take the goods direct to the consumer, instead of to the jobber.

Mr. MORSE. Yes, sir; that is the retailer, also, and is not confined absolutely to the ultimate user. The principle we went on was

get this stuff if possible to the ultimate user with as few intermediate profits as possible.

Mr. CRAMTON. How long is this contract to continue?

Mr. MORSE. Two years.

Mr. CRAMTON. They bind themselves to employ one or two hundred expert special salesmen for a period of two years to take this material to the consumer?

Mr. MORSE. They did not bind themselves on that, sir, as to how many salesmen they will employ.

Mr. CRAMTON. That is the statement you give out, that they are employing that many men?

Mr. MORSE. That is correct.

Mr. CRAMTON. Would it not be of some interest to the Government to make the sales through the jobbers instead of employing salesmen?

Mr. MORSE. We have tried to do that, but there is not any direct sale for Artillery harness, nor for the so-called breast harness, as such.

Mr. CRAMTON. Do these goods, for that reason, have to be altered, and is that the reason you only get \$3,000,000?

Mr. MORSE. That is one of them.

Mr. CRAMTON. That has to be done before they sell them to anybody. That having been done, why should not they be sold as well to the jobber and have the thing closed up rather than have the Government stand the expense of two or three hundred salesmen?

Mr. MORSE. If you have a piece of harness that can be sold to the ultimate consumer for so much money, then the answer is that you can get it from your ultimate consumer. You are going to ask for a profit for the retailer and a profit for the jobber, and I do not see where the Government is going to get any more by selling to the jobber than to the retailer direct.

Mr. CRAMTON. It depends upon who pays the expenses of these salesmen in making the sales to the retailers.

Mr. MORSE. Their expenses are not deducted from the sale price before the division of the price is made; so if they paid salesmen \$200, we could not stand for over 15 per cent of it.

Mr. Sisson. Then the public has been looking—not with reference to this particular item—but the public has been looking with a good deal of curiosity into this sale of Government property because they would not want it to be sold to those people who possibly have a monopoly on a particular line of goods already, and the public has pretty generally demanded that this stuff be sold directly to them. That was especially true with reference to certain food, and I imagine if you begin to deal with jobbers, who, of course, expect to make a profit, and as a result of selling to one or two men all of your harness, we will say, we would open ourselves to the charge of selling it to some man who was a profiteer.

Mr. CRAMTON. Of course, when you make a sale to a dozen or 15 men who are very largely interested in the wholesaling and the manufacture of the goods and make an agreement with them that these goods shall not be sold to jobbers who are customers of the wholesalers, you make a contract that is not, perhaps, entirely undesirable to the manufacturer and the wholesaler, a contract on which we are getting only 15 per cent of the appraised value.

Mr. Sisson. In any view you take of it it is a problem which has its difficulties as any business problem has.

MANNER OF DISPOSING OF SURPLUS MATERIAL.

Mr. MORSE. I would like to make this comment in reference to the large contracts that have been entered into by the War Department. In general, we have contracts of this nature which we have had on a number of items, and in a good many instances with people identified with the industry, and those contracts have been, in my opinion, very successful. In one or two cases we have entered into similar contracts with jobbers who have come in from the outside, and they were inexperienced with the distribution of that kind of material, and almost without exception those contracts have not been particularly successful from the standpoint of the Government.

In other words, I have found, and I thoroughly believe that is the best disposition we can make of this material, if it is possible to find the right people who understand it and are familiar with the marketing of it and can handle it, even though they are in the industry, and for that reason may have an opportunity to more or less control the business in the use of the War Department material. I believe that is more satisfactory than selling to people who have not the experience in that class of goods.

AUTHORITY TO REPAIR MATERIAL LACKING.

Mr. CRAMTON. Is that in part due to the fact that your organization, when you have been selling things direct, due to your lack of experience in that trade, have not taken the pains to put the goods in the condition for sale that a man in that line of business would do? For instance, let me cite the instance of a very minor matter that came before one of our other committees. The authorities of the District, when they have gone to your department to secure Government supplies for the use of the Government itself, in buying desks, have found that a desk would be delivered to them probably without a key and with some minor, very slight repairs necessary that anyone in the trade would have attended to. If that principle was carried out and should give you great expense, it would explain why it would be necessary for you to act through the trade.

Mr. MORSE. Unfortunately, in that connection, we are not allowed to repair an article of that kind and eat up the cost out of the proceeds of sale, and the department states that they have no funds available for doing that work.

Mr. CRAMTON. But you can take artillery harness and make a contract with the United States Harness Co. to entirely remodel all the harness, and you can take that cost out of the proceeds of the sale. Do you mean that you have not the authority, for instance, to supply a key, or put on a hinge, or to make a slight repair?

Mr. MORSE. Absolutely: we can not take that out of the proceeds of the sale.

Mr. SLEMP. In other words, you would go into a large manufacturing proposition if you did that?

Mr. MORSE. That case came up specifically in the case of automobiles. If we could spend some money on an automobile we could probably get two or three hundred dollars more for it.

Mr. ANTHONY. You say you can not do that; but the Motor Transport people can do that?

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Mr. CRAMTON. What is there to prevent you from having a contract with the United States Automobile Co. to take those automobiles and remodel them and make trucks out of them and sell them, and take the cost of that work out of the sales price?

Mr. MORSE. If we sold them as unserviceable cars in the condition in which they stand, they can do anything they want to with them.

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Mr. MORSE. I grant you that, absolutely, and I have tried to induce the various departments to recondition the stuff.

Mr. CRAMTON. But if they have to pay the price that they would in the open market for a new article and then stand the cost of conditioning—

Mr. MORSE (interposing). Is that the universal fact that they do?

Mr. CRAMTON. I do not know how universal it is; I am trying to prevent that.

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In other words, I have found, and I thoroughly believe that is the best disposition we can make of this material, if it is possible to find the right people who understand it and are familiar with the marketing of it and can handle it, even though they are in the industry, and for that reason may have an opportunity to more or less control the business in the use of the War Department material. I believe that is more satisfactory than selling to people who have not the experience in that class of goods.

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mendous loss in real estate and cantonment construction, where you run about 8 or 10 per cent, and the surplus goods running 90 or 100 per cent; so even taking such discounts, you are only getting for this surplus material 50 per cent of the general average, even counting your 100 per cent increase there.

Mr. MORSE. Yes, sir.

Mr. SLEMP. Do you feel entirely satisfied about that?

Mr. MORSE. I do; on that material.

Mr. CRAMTON. Did that contract cover material available for use without alteration?

Mr. MORSE. Very little of it.

Mr. CRAMTON. Did it cover any other material?

Mr. MORSE. In the artillery harness there are bridles but not reins; there are saddle blankets, some in good condition and some not in good condition. There is a halter, and the halter rope is included in that. Those are being sold at pretty close to commercial prices. On the other hand, take the McClellan saddle. We have approximately 175,000 of those. We have in this country, I am informed, an average yearly consumption of less than 5,500 of the McClellan saddles.

Mr. CRAMTON. In the Army?

Mr. MORSE. No; in the United States.

Mr. CRAMTON. How many would be needed in the Army as we have it organized?

Mr. MORSE. The Army, outside of the 175,000, has what it wants for some time to come.

Mr. CRAMTON. But in the organization of the Army as we planned it for overseas what would have been the annual consumption?

Mr. MORSE. It would have been high, of course. But I mean to say that this problem we are facing in disposing of the 175,000 saddles, with a normal consumption of 5,500 in the country, is a difficult problem. The only way in which you can hope to absorb that number of saddles is to fix the price of those saddles so low that everybody will buy the saddle simply to have one, whether they are going to use it once a year or not.

Mr. ANTHONY. What is the minimum price you fixed on the McClellan saddle to this company?

Mr. MORSE. I think it is \$4. They are selling them for about \$10.

Mr. SLEMP. What was the cost to the Government?

Mr. MORSE. Approximately \$35.

Mr. SLEMP. You are selling them at \$4; that is at a little more than 10 per cent of the original cost?

Mr. MORSE. Yes, sir.

Mr. CRAMTON. What do you get out of the \$10?

Mr. MORSE. I think we get about \$7.50 out of the \$10.

Mr. ANTHONY. You say there has only been \$15,000,000 of harness and saddles and such materials declared surplus?

Mr. MORSE. No; I said that was the estimated value of what was included in this contract.

Mr. ANTHONY. So this contract is only a small part of the total amount of harness and saddles?

SALES OF LEATHER AND HARNESS TO USERS DIRECT.

Mr. MORSE. During the past year we have sold in leather alone over \$8,000,000, at a return of 80 per cent of its cost.

Mr. ANTHONY. Of raw leather?

Mr. MORSE. Yes, sir. We have sold all of standard type harness, that is the collar and hame harness, direct.

Mr. ANTHONY. How direct?

Mr. MORSE. We have advertised it and sold it direct to the users.

Mr. ANTHONY. In quantities?

Mr. MORSE. In relatively small quantities.

Mr. ANTHONY. Has there been any way in which a farmer could buy a set of harness direct?

Mr. MORSE. Yes, sir; through the medium of the so-called Quartermaster Stores established in September, 1919. I think there were a maximum of about 35 of those stores at one time, and they had sample sets of this harness, and a wide publicity campaign was conducted for the sale of them.

Mr. ANTHONY. Is there any way now by which a farmer can buy a set of the breast harness, or buy a saddle direct from the Government?

Mr. MORSE. Not direct from the Government; the remaining surplus is sold.

Mr. ANTHONY. The Graham investigating committee, as I recall, found that the Government had manufactured during the war 2,000,000 double sets and 500,000 single sets and 2,000,000 halters and 500,000 saddles, because an enormous number of extra parts that go into the harness and leather equipment of that kind, and according to your figures you show the disposition of about \$25,000,000 worth of material, together with the \$8,000,000 worth of leather you have sold and your \$15,000,000 contract.

Mr. MORSE. That leather did not include previous sales of harness or saddles. We have sold all of the collar and hame harness declared surplus and all the stock saddles declared surplus.

Mr. ANTHONY. Have you any idea how many sets of harness and how many saddles are held in reserve?

Mr. MORSE. No, sir; I do not know that.

Mr. ANTHONY. You have sold all that have been declared surplus; they are included in this contract?

Mr. MORSE. Yes, sir.

Mr. ANTHONY. And that amounts to \$15,000,000?

Mr. MORSE. What is left of the surplus. I am getting out now a complete statement of the sales, for the Graham committee, a complete statement of all sales of leather and harness. I do not know what the total figures are.

Mr. ANTHONY. The Graham committee is going into that now?

Mr. MORSE. Yes, sir.

Mr. Sisson. In other words, the \$15,000,000 includes the remainder of the harness, leather, and saddles that had been declared surplus? Prior to that time you had sold very much more than that?

Mr. MORSE. Yes, sir. I might say that, starting from the middle of 1919 there has been a campaign carried on for the sale of horse equipment of all kinds.

Last February Gen. Rogers had a detailed study made of the harness situation and a final surplus was supposed to have been declared at that time. We continued our monthly sales campaign on that up until August.

Mr. ANTHONY. What did you get a set for the C. & H. harness?

Mr. MORSE. I can not tell you exactly, but I think it was around \$50. That harness returned us about 85 per cent of the cost.

Mr. ANTHONY. The present retail price of the ordinary farm harness is from \$75 to \$90, and it seems to me if a farmer had a chance to buy a single set of that harness that it would go pretty rapidly.

Mr. MORSE. Not with a breast collar; they will not touch that.

Mr. ANTHONY. I know. Has the department tried to remodel them?

Mr. MORSE. It was decided that it was not possible for the department to do it. The Quartermaster General can give you the details of that because that was carried on at Jeffersonville.

ITEMS COVERED IN UNITED STATES HARNESS CONTRACT.

Mr. CRAMTON. I would like to ask if it would be convenient to put in the record what was covered by this harness contract?

Mr. MORSE. We can give you a copy of the contract for the record.

Mr. ANTHONY. Suppose you put the contract in the record.

Mr. CRAMTON. Does it show how many sets of those harness were artillery harness and how many McClellan saddles there were?

Mr. MORSE. Every single set of artillery harness has a McClellan saddle. That is made in the harness.

Mr. CRAMTON. I want to get the information in the record.

Mr. MORSE. Do you want an inventory of the surplus at the time the contract was signed?

Mr. CRAMTON. That would be covered by this contract?

Mr. MORSE. Yes.

Mr. CRAMTON. I would like something to show how much of this material was available for use without much alteration.

Mr. MORSE. We can give you an inventory of what was available at that time of surplus harness and horse equipment.

(The matter above referred to is as follows:)

CONTRACT—UNITED STATES HARNESS CO.

This contract made this 24th day of September, 1920, by and between the United States of America, by E. C. Morse, Director of Sales, supply division, General Staff (hereinafter called the "contracting officer"), acting under the authority of the Secretary of War, of the first part, and United States Harness Co., a corporation organized and existing under and by virtue of the laws of the State of West Virginia, and having an office for the transaction of business at Ranson, W. Va. (hereinafter called the "contractor"), of the second part.

Witnesseth:

Whereas certain leather horse equipment, leather spare parts, hardware and accessories for same, and cut-leather stock, hereinafter described, have been procured and acquired by the United States; and

Whereas same is now surplus and the United States desires to dispose of the same; and

Whereas much of the same is not now in a merchantable condition by reason of condition, type of manufacture, or other reasons, necessitating the reconditioning or remodeling of same prior to sale to the general public; and

Whereas the contractor represents that it is a duly incorporated corporation with an authorized capital of \$500,000, of which \$300,000 is fully paid up, and that it has proper facilities for the reconditioning, remodeling, and sale of the material forming the subject matter of this contract; and

Whereas Joseph C. Byron, George B. Goetz, Azel F. Cochran, and Henry W. Benke, acting in behalf of the contractor, on September 1, 1920, entered into an informal agreement with the United States for the reconditioning, remodeling, and sale of said material.

Now therefore, the parties hereto in consideration of the premises and the mutual agreements hereinafter contained, have agreed and do hereby agree as follows:

ARTICLE I.—MATERIAL TO BE SOLD.

The contractor agrees to use its best efforts to sell or to recondition, salvage, convert into salable merchandise, and to sell for the account of the United States all horse equipment belonging to the United States which has been declared surplus and/or which may be declared surplus within one year from the date of this contract, of the following character and types: (a) Harness and saddles, (b) leather spare parts for harness and saddles, (c) hardware and accessories for harness and saddles, and (d) cut leather stock.

ARTICLE II.—SALE OF ARTILLERY HARNESS GUARANTEED.

The contractor further agrees and guarantees to sell as is or to recondition, salvage, convert into saleable articles of merchandise, and to sell for the account of the United States and pay for, not less than 50,000 double sets of new black or russet breast-collar artillery harness of said horse equipment at prices resulting in payment to the United States of not less than the respective minimum prices fixed for such harness in Article VIII hereof. One-sixth of said quantity of said artillery harness shall be reconditioned, salvaged, converted into saleable merchandise, sold and paid for within nine months from the date of this contract, and an additional one-sixth of said quantity shall be reconditioned, salvaged, converted into saleable merchandise, sold, and paid for during each three-month period thereafter until the entire 50,000 sets shall have been sold and paid for.

Should any part of any of said quotas of said quantity of 50,000 sets of artillery harness remain unsold at the expiration of the respective periods during which the contractor is herein obligated to sell same, the contractor shall at that time purchase from the United States and pay for the entire balance of such quota so remaining unsold at the minimum prices set forth in Article VIII hereof. Whenever upon subsequent sale by the contractor of any of the property embraced within such balances of such quotas the prices realized exceed the minimum price paid therefor to the United States to such an extent that the percentage of return to the United States under the schedule of percentages set out in Article X hereof would exceed the minimum price paid to the United States, then the contractor shall pay to the United States in each instance such sums of money as will when added to the minimum price already paid to the United States equal the amount which the United States is entitled to under the schedule of percentages contained in Article X.

ARTICLE III.—ADDITIONAL MATERIAL.

The United States may in its discretion submit from time to time to the contractor hereunder additional schedules or inventories of additional lots or articles of leather goods of any kind and/or of horse equipment or supplies or accessories to be purchased and/or sold by the contractor hereunder at such prices within such periods and on such terms as may be indicated in such additional schedules or inventories submitted by the United States. Upon the submission by the United States to the contractor of such additional schedules or inventories, the contractor agrees to accept or reject the same as a part of the subject matter of this contract in accordance with its terms and the provisions of such additional schedules and inventories in writing within a period of 20 days from the time of such submission, and in the event that the contractor shall so indicate his acceptance of the same, then and in such event the bond given by the contractor under this original contract shall apply equally and in full to such additional inventories or schedules and the matter contained

therein in all respects as though such additional inventories or schedules were set out in this original contract and made a part hereof prior to its execution.

ARTICLE IV.—GRADES OF HARNESS AND SADDLES.

For the purposes of this contract all complete sets of harness, as well as saddles, shall be classified into grades designated and described as follows:

Grade P.—New and in first-class merchantable condition and not reconditioned.

Grade KC.—New, in first-class reconditioned state and merchantable.

Grade LM.—New, but moldy, or in otherwise bad condition, in whole or in part, though serviceable.

Grade OD.—New, but damaged, moldy, or in otherwise bad condition and unusable, though serviceable.

Grade TO.—Used, but serviceable, all parts of which are capable of use or being converted into serviceable articles.

Grade X.—Used and composed of unserviceable components selected from otherwise serviceable sets, which components are damaged or unserviceable from any cause.

ARTICLE V.—COMPONENTS OF ARTILLERY HARNESS.

For the purposes of this contract it is agreed between the parties that one complete lead double set of black or russet artillery harness shall consist of the following components: 2 McClellan saddles, 1 saddle bag, 1 riding whip, 2 blankets, 2 halters, 2 rope leads, 2 bridles, 2 choke straps, 2 breast collars and neck straps, 4 cable traces, 2 turn backs and hips, and 4 22-inch hook and muzzle chains.

It is further agreed that for the purpose of this contract one complete wheel double set of black or russet artillery harness shall consist of the following components: 2 McClellan saddles, 1 saddle bag, 1 riding whip, 2 blankets, 2 halters, 2 rope leads, 2 bridles, 2 choke straps, 2 breast collars and neck straps, 4 cable traces, 2 neck collar pads, 2 neck collar straps, 4 mogul springs, 2 girths and 2 breechings complete.

ARTICLE VI.—STORAGE AND DELIVERY.

Until the contractor shall request delivery of same, the property forming the subject matter of this contract shall be stored by the United States at the risk and expense of the United States in such places and in such warehouses as may suit the convenience of the United States.

Said property shall be delivered to the contractor by the United States at the expense of the United States, f. o. b. cars at points of storage, at times and in quantities, either complete sets or component parts which may have been separately packed on inspection under this contract, subject to other provisions of this contract, as the contractor may request, and in accordance with his shipping instructions, provided, however, that at no time shall the total amount of property delivered to and unpaid for by the contractor exceed three-fourths of the amount of the penal bond hereinafter required to be furnished by the contractor.

The contractor may at any time during the life of this contract furnish to the United States bond for an additional amount, in form and with surety satisfactory to the contracting officer, and upon furnishing such additional bond the amount of property which may be delivered to the contractor under the provisions of this article shall be increased by the amount of such bond.

Prior to such delivery to the contractor all of said property shall be inspected and divided into the various grades set out in Article IV hereof. Each article shall be inspected by one competent inspector representing the United States and one competent inspector representing the contractor. Any disagreement between these two inspectors in the performance of the duties herein outlined shall be determined by a third party, to be selected by the two inspectors. In the event of the inability of the two inspectors to agree upon the third party, such third party shall be named by the Secretary of War.

All classifications when determined on such inspections shall be final and conclusive regardless of when physical delivery may be made, except in instances of damage by fire or water or willful damage while yet in the possession of the United States subsequent to such inspection and classification before delivery to contractor or to a carrier pursuant to contractor's shipping instructions.

ARTICLE VII.—TITLE.

Title to each and every item of the property included within the terms of this contract shall remain in the United States until fully paid for by the contractor, and the responsibility of the United States therefor shall cease upon delivery to the contractor f. o. b. cars at point of storage.

ARTICLE VIII.—SALES BY CONTRACTOR.

No sales of any grades of black or russet breast collar artillery harness shall be made by the contractor at prices per double set which will return to the United States as its percentage of the proceeds of such sales an amount per double set less than the amounts set opposite such grades, respectively, in the following list:

Grade P—Double set wheel	\$19.46
Grade P—Double set lead	17.07
Grade KC—Double set wheel	14.60
Grade KC—Double set lead	12.80
Grade LM—Double set wheel	12.85
Grade LM—Double set lead	11.30
Grade OD—Double set wheel	1.46
Grade OD—Double set lead	1.28
Grade TO—Double set wheel	9.73
Grade TO—Double set lead	8.52
Grade X—Double set wheel	1.46
Grade X—Double set lead	1.28

Single sets of artillery harness of these grades will not be sold by the contractor at prices which return to the United States as its percentage of the proceeds of such sales an amount per single set less than one-half of the amounts shown on this list for double sets of such harness of like grade and character, respectively.

No sales of component parts of black or russet breast collar artillery harness of grade P shall be made at prices which will return to the United States as its percentage of the proceeds of such sales amounts less than the respective amounts set opposite such component parts in the following list:

Kellian saddle	\$4.00
Saddlebag	.75
Long whip	.05
Blanket	1.50
Blower	.60
Line lead	.10
Line	.60
Crane strap	.20
Breast collar and neck strap	.75
Trace, lead	.02
Back and hop	.33
Web hook and mug chain	.0075
Neck collar pad	.05
Neck collar strap	.25
Coil spring	.025
Line	.20
Brushing complete	1.00
Trace, wheel	.015

Sales of component parts of other grades of said artillery harness, wheel or line, respectively, shall not be made at prices lower than prices which bear the same ratio to the prices at which component parts of grade P may be sold, as is provided in the paragraph immediately above, that the price fixed herein for a double set of such other grade bears to the price herein fixed for grade P.

The contracting officer will from time to time fix minimum amounts to be returned to the United States upon all the property herein contracted for, other than the black and russet breast collar artillery harness and component parts therefor, and may change such minimum amounts whenever he may deem same advisable after 15 days' notice to contractor of such intended change. No sales of such property shall be made by the contractor at prices which will return to the United States as its percentage of the proceeds of such sales amounts less

than such minimum amounts so fixed by the contracting officer and in effect at the time of such sale.

ARTICLE IX.—PROPERTY MAY BE SOLD "AS IS."

The contractor may at its option sell any of the property herein contracted for, including that guaranteed to be sold in Article II hereof, in the condition same is received from the United States, and without reconditioning, salvaging and/or converting same, provided, however, that the prices realized for same in such sales shall not be less than the respective minimum prices set forth for such sales in Article VIII hereof.

ARTICLE X.—PRICE TO BE PAID UNITED STATES.

The contractor shall pay to the United States the following percentages of the gross proceeds of all sales of the property covered by this contract, without any deduction whatever from such gross proceeds except as may be in the contract specifically provided:

	Per cent
On sales of complete sets of artillery harness, sold in the condition received from the United States, in lots of not more than 100 sets-----	
On sales of complete sets of artillery harness, sold in the condition received from the United States, in lots of more than 100 sets-----	
On sales of "H. T. G." harness, sold in the condition received from the United States-----	
On sales of hardware, accessories, and cut leather, sold in the condition received from the United States-----	
On sales of buckboard, ambulances, engineer or other commercial harness, sold in the condition received from the United States-----	
On all other sales covered by this contract-----	

It being the intention of the parties hereto that the 40 per cent retained hereunder by the contractor shall be its sole compensation for all expenses to which it may have been put, including but not limited to labor and materials in reconditioning, etc.

ARTICLE XI.—PAYMENT.

Payment for the property herein contracted for shall be made by the contractor to the United States at Washington, D. C., or other point indicated in the United States, in funds acceptable to the United States on the fifteenth day of each month for all sales of said property made by the contractor during the calendar month immediately next preceding.

Property delivered to the contractor hereunder but not sold by it nor paid for as part of the guaranteed quota as herein provided shall be paid for by the contractor on the 15th day of each month for all deliveries made by the United States to the contractor during the calendar month immediately next preceding at the minimum prices established for such property by the schedule contained in Article VIII hereof, and upon the subsequent sale thereof additional payments shall be made to the United States according to the rule laid down in Article II hereof with reference to subsequent sales of property taken and paid for by the contractor before sale in order to fill its guaranteed quota.

The amount of the payments to become due to the United States hereunder shall be based on each separate sale made by the contractor, and shall not be based on average returns, either covering specific periods of time, amounts, classes.

ARTICLE XII.—TIME OF PERFORMANCE.

This contract shall continue in force for a period of two years from the date of execution, unless same shall be extended by mutual agreement of the parties in writing, provided, however, that the United States may, without waiving any other rights or remedies, terminate its performance of the contract prior to the expiration of such period of two years in the event of any default by the contractor in the performance of the contract.

ARTICLE XIII.—BONDS.

The contractor shall furnish to the United States within 20 days after execution and delivery of this contract, and prior to the delivery to the contractor

of any property hereunder, except such as is paid for on delivery, a bond in the sum of \$200,000, conditioned upon the full and faithful performance by the contractor of all the terms and conditions of this contract on the part of the contractor to be performed, including full payment to the United States of all moneys due the United States hereunder. Such bond shall be in the form and with sureties satisfactory to the contracting officer.

ARTICLE XIV.—REPORTS AND EXAMINATIONS OF BOOKS.

The contractor shall from time to time and whenever so requested, furnish the contracting officer with correct statements and reports on the progress of the performance of this contract, and full information of all factors relating to performance hereunder, and the contracting officer, or his duly authorized agent or agents, shall have the right at all reasonable times to examine the contractor's books and records for the purpose of verification. The contractor agrees at all times to do all things necessary to protect and conserve the best interests of the United States.

ARTICLE XV.—CAUSES BEYOND THE CONTROL OF THE PARTIES.

The parties to this contract shall not be deemed to be in default hereunder by reason of failures or delays due to fire, explosions, strikes, riots, acts of God, or other like causes.

ARTICLE XVI.—USE OF MATERIAL BY THE UNITED STATES.

Upon notice in writing from the contracting officer to the contractor, the United States may, for its own uses, withdraw from the operation of this contract any of the property herein contracted for prior to the sale thereof by the contractor, and in such event shall compensate the contractor therefor in conformity with the measure of damages outlined in Purchase, Storage and Traffic Division Circular No. 111, series of 1918.

ARTICLE XVII.—ADJUSTMENT OF CLAIMS AND DISPUTES.

Except as otherwise specifically provided in this contract, any claims, doubts, or disputes which may arise under this contract, either as to its performance or nonperformance, may be determined, upon petition of both parties hereto, by the Secretary of War. The decision of the Secretary of War shall be final and conclusive on all matters submitted for determination.

ARTICLE XVIII.—MANNER OF GIVING NOTICE.

Any notice to the contractor under this contract, when not actually delivered in writing to the contractor, shall be deemed to have been sufficiently given when mailed in a sealed postpaid wrapper, addressed to the contractor at Ranson, W. Va.

Any notice to the United States under this contract, when not actually delivered in writing to the contracting officer, shall be deemed to have been sufficiently given when mailed in a sealed postpaid wrapper addressed to the Director of Sales, War Department, Washington, D. C.

ARTICLE XIX.—NOT TRANSFERABLE.

Neither this contract nor any interest herein shall be transferred by the contractor to any other party, except to the extent permitted by section 3477, United States Revised Statutes.

ARTICLE XX.—OFFICIALS NOT TO BENEFIT.

No Member of or Delegate to Congress or Resident Commissioner is or shall be admitted to any share or part of this contract, or to any benefit that may arise therefrom, but this article shall not apply to the contract so far as it may be within the operation or exceptions of section 116 of the act of Congress approved March 4, 1909 (35 Stat., 1109).

ARTICLE XXI.—DEFINITIONS.

Contracting officer: The officer in whose name this contract is executed, his predecessor or successors, or anyone from time to time designated by the Secre-

tary of War to act as contracting officer, and his or their duly authorized agents or agents who may specifically be delegated to perform the various functions herein attributed to the contracting officer.

Contractor: The party of the second part and its successors.

In witness whereof the parties hereto have caused this contract to be executed and delivered in sextuplicate by the proper officers thereunto duly authorized the day and year first above written.

Approved September 24, 1920.

L. E. HANSON,
Lieutenant Colonel, Quartermaster Corps,
Chief Surplus Property Branch,
Office Quartermaster General.

UNITED STATES OF AMERICA.
By E. C. MORSE, Contracting Officer.
UNITED STATES HARNESS CO.,
By GEO. B. GOETZ, President, Constructor.

Witnesses:
VICTOR E. RUEHL,
JOSEPH C. BYRON, Secretary.

WAR DEPARTMENT.
OFFICE OF THE DIRECTOR OF PURCHASE AND STORAGE.
Washington, February 11, 1920.

File No: S. B. (Ord.) 455-291 General.
Memorandum for Mr. E. C. Morse, Director of Sales.
Subject: Harness and saddles.

1. In compliance with your memorandum of February 3, copy attached the following figures are given for your information. The material shown as stock on hand includes the harness and saddles in storage exclusive of the amount already declared surplus.

Item.	Stock in hand.	Requirements.	Surplus.
Harness, artillery, breast collar, lead, model 1916, double set	47,827	26,540	21,287
Harness, artillery, breast collar, wheel, model 1916, double set	45,884	14,191	31,693
Harness, truckboard and spring wagon, single set	222	967	
Harness, truckboard and spring wagon, double set	2,955	955	2,000
Harness, cart, battery, reel, and signal Corps, breast collar, single set	239		239
Harness, cart, machine gun, single set	5,773	10,000	
Harness, cable trace (HTG), breast collar, lead, single set	21,195		21,195
Harness, cable trace (HTG), breast collar, wheel, single set	26,728		26,728
Harness, cart, single set	17,540	15,040	2,500
Harness, ambulance or escort wagon, collar and hame, lead, single set	47,878	47,878	
Harness, ambulance or escort wagon, collar and hame, wheel, single set	45,900	45,900	
Harness, combat, breast collar, lead, single set	3,534	13,666	
Harness, combat, breast collar, wheel, single set	6,350	13,666	
Harness, combat, collar and hame, lead, single set	9,145	9,145	
Harness, combat, collar and hame, wheel, single set	12,811	7,811	5,000
Saddles, full rig	6,520	6,374	146
Saddles, skeleton rig	2,202		2,202
Saddles, McClellan, Cavalry, Model 1904	169,599	109,599	60,000
Saddles, McClellan, Field Artillery, Model 1902	60,130	54,130	6,000

2. The amounts shown in column 3 above are being declared surplus the date.

3. A complete list of the component parts of harness is not on hand at the present time. The depots are compiling such a list, and upon its receipt in the office, a copy of same will be forwarded to you. In general these component parts represent approximately 50,000 sets of harness; 1,500 sets have already been made up from these parts. As soon as it is ascertained what price can be obtained for the commercial harness the advisability of making up an additional amount from the parts on hand will be taken up with you. It was found that the parts for cable trace harness could not be advantageously used in the manufacture of commercial harness. Accordingly all component parts of this type of harness have recently been declared as surplus. These parts represent approximately 20,000 sets. The surplus component parts of artillery harness have also been so declared.

4. At present Jeffersonville is assembling 1,000 sets machine-gun cart harness from parts on hand. As it will be noted from above list, this amount is necessary to bring stock on hand up to the requirements of the Army.

5. Experiments are being conducted on Cavalry equipment, but no definite information has been received to the effect that it is the present intention to discard McClellan Saddles.

6. Instructions have been received from The Adjutant General of the Army that breast collar harness is preferred for use in the United States, but we are directed to retain sufficient collar and hame harness necessary to equip all mule-drawn transportation.

H. L. ROGERS.

*Quartermaster General, United States Army,
Director of Purchase and Storage.*

SUFFICIENCY OF PRESENT PERSONNEL.

Mr. SLEMP. Suppose the Army declares a lot more surplus next year on the supposition, perhaps, that the Army will be reduced? Will this force you are asking for in your office be sufficient to take care of all the possibilities in that direction?

Mr. MORSE. I believe it will for an overhead organization.

Mr. SLEMP. Suppose they do not make any change in that regard; will you need all the force you have?

Mr. MORSE. I think we have pared it down to about the limit. It does not make much difference in the overhead.

Mr. Sisson. In the organization of this overhead of your department you dispensed with all the highly paid civilian personnel?

Mr. MORSE. May I state that during the hearings last year on the Army appropriation bill I stated at that time that I believed that it would be possible to obtain sometime this fall officers who could, to a large extent, replace the civilian personnel. By civilian personnel now I mean the people above the clerical grade, specialists.

Mr. Sisson. You mean officers detailed from the Army?

Mr. MORSE. Personnel detailed from the Army for that work. I started in immediately and had, as a matter of fact, started previous to that time, a campaign to obtain that commissioned personnel. I found that it was not an easy task to get commissioned personnel detailed, due to the relatively small number of officers available, apparently, for such detail. However, in October I told the Secretary and the Chief of the Supply Division of the General Staff that I was positively going to leave the service the 1st of January, and that immediate steps must be taken to put a commissioned personnel in there. The result being that on the 1st of January, with the exception of three men, all the higher paid men—that is, receiving over \$2,500—will be replaced by commissioned officers.

Mr. Sisson. So your real overhead charge will be made up largely of the clerical force in that office?

Mr. MORSE. That is practically all that is being asked for for next year.

Mr. Sisson. Because the Army officers' salaries would be paid anyway?

Mr. MORSE. Yes, sir.

Mr. Sisson. Does the record show what that overhead charge will be in your office? If not, I wish you would put that in the statement.

Col. HARTSHORN. It will have to be an approximation. We have allowed for that duty 18 officers.

Mr. Sisson. I did not want the officers' salaries included in that, because they will be paid anyway.

Col. HARTSHORN. I can give you the other figures; that is already in the record.

ACTIVITIES OF THE BUREAU.

(See pp. 46, 51.)

Mr. Sisson. If you should dispense with this central control of sales, would not the expenses of the added clerical force in each of the departments of the Government more than exceed the cost of the office of the Director of Sales? In other words, suppose they had to perform in each separate department of the Government the function which you perform, would that not multiply the clerical force needed in the various departments to keep up with those sales?

Col. HARTSHORN. It would, to a certain extent. It would be necessary to set up in each bureau something to take the place of this agency. I think I am safe in stating that it is the policy of the Secretary to insist upon an adequate amount of advertising in connection with all these large projects.

Mr. Sisson. I do not believe Congress would stand for any of these secret sales.

Col. HARTSHORN. The inventory and transfer section is an absolute necessity, under legislative enactments——

Mr. Sisson (interposing). I am trying to ascertain the real functions you perform. There are numbers of these departments that have various articles under their control on which they will declare a surplus. Many departments may have the same character of article and the same character of material.

Col. HARTSHORN. Yes, sir.

Mr. Sisson. Then there are various departments of the Government that may need the very articles which these other departments would declare surplus. If we dispense with your department, how could these separate departments so function that each department could know where it could get what it needed?

Col. HARTSHORN. Under the law, as I see it, it will be necessary to maintain a central clearing house for these commodities. Each of the supply divisions are coordinate one with the other, and to set up such an agency in any one supply division would not make for efficient administrative procedure.

Mr. Sisson. In other words, your opinion is you would have to have one place where any department of the Government could go to ascertain what supplies were on hand that they might need, which would save them the expense of purchasing those supplies?

Col. HARTSHORN. That is true.

Mr. ANTHONY. There is evidently no such place now. That was developed yesterday. It was brought out in the questioning of some of the officers that they had not availed themselves of the opportunity or that there was not any such place.

Mr. Sisson. I would not want to hold the gentleman responsible for it if there was no such place set up in the Government. But if there is such a place set up in the Government and they do not avail themselves of it, they must be held responsible for the expenditure.

of the public funds when the Government already has the material which they purchased.

Col. HARTSHORN. They are required to state on their requisitions that there is not available in the Government departments anywhere the article which they contemplate purchasing.

Mr. Sisson. Before they can sign that statement it becomes necessary for them, if they tell the truth, to come to your office?

Col. HARTSHORN. That is so.

Mr. Sisson. To determine whether you have what they need or not?

Col. HARTSHORN. Yes, sir.

Mr. CRAMTON. Your office is in a position to give them that information, to answer their questions on that?

Col. HARTSHORN. In so far as surpluses are reported.

Mr. CRAMTON. If they wanted the information, they do not have to go to your office. They could get the material from you after 21 days?

Col. HARTSHORN. Yes, sir; if we had it, but we are apt to sell it after 21 days, if we can.

METHOD OF DETERMINING SURPLUS PROPERTY.

Mr. Sisson. There is a disposition to hold anything they have, and when you want to get that article out of them you have to peel it off. Can you make any suggestion to this committee so that we might have some checking up to determine how far the stuff that they have ought to be declared surplus without having to use too much machinery to get that information?

Col. HARTSHORN. As I stated before the legislative subcommittee last week, the main factor in determining the amounts of supplies to be declared surplus is tables of organization. These tables of organization, in turn, are based upon the strength of the Army, as indicated by legislative enactment. If it were definitely stipulated what the Army was to consist of there would be no difficulty, after a time, in determining what can or can not be declared surplus.

Mr. Sisson. That would be easy, provided they did not want to hold too much.

Col. HARTSHORN. That is true.

Mr. Sisson. Suppose I am in charge of a department of the Army. I have a certain amount of property on hand. It would be perfectly natural for me—and I am not censuring anybody—to hold everything on earth that I could in my department.

Col. HARTSHORN. I might state that it is a function of the Inspector General of the Army, in the course of stated inspections, in a routine way, to report upon all the excess or surplus property which he finds.

Mr. Sisson. When that department was before the legislative committee I asked the general in charge what function he really did perform, and I am finding some real service for him now.

Col. HARTSHORN. That has always been one of their functions, even in a small way, before the war.

Mr. Sisson. If he should do his duty, and Congress should determine on an Army of 175,000, or any other number, it would be his duty to go through the inventories of the property of the various

departments of the Government and have declared what ought to be declared surplus.

Col. HARTSHORN. To make his recommendations in the premises.

SALES TO FOREIGN GOVERNMENTS.

Mr. SLEMP. Do you have any other organization in the War Department that sells to foreign Governments, independent of your organization? Is there any organization of that kind kept alive?

Mr. MORSE. None, except that there is still a very small force there winding up the work of the Parker Commission.

Mr. SLEMP. In the language of this item, the Secretary of War is "authorized, in his discretion, to sell to any State or foreign Government with which the United States is at peace at the time of the passage of this act"; do they keep an organization down there?

Mr. MORSE. That is in our office.

Mr. SLEMP. You have control of that foreign branch?

Mr. MORSE. Yes, sir.

Mr. SLEMP. So there are two organizations for that work?

Mr. MORSE. No, sir.

Mr. SLEMP. There were when they sold the material to France. were there not?

Mr. MORSE. There was an organization that sold the surplus overseas.

Mr. SLEMP. Has that been disbanded?

Mr. MORSE. It was discontinued, except for a commissioned officer and two or three clerks, who are simply winding up the affairs. Maj. Pierson can tell you about that.

Mr. SLEMP. That will probably end at the close of this fiscal year?

Mr. MORSE. I could not say. We are selling here to foreign governments more or less all the time through a branch of our office in the director of sales office.

NUMBER OF SALES AGENCIES IN THE WAR DEPARTMENT.

Mr. ANTHONY. To make this perfectly clear, and following Mr. Sisson's question, your office not only has charge of the sales of articles declared surplus, officially, but each one of the different departments of the War Department has a sales force that actually sells its stuff.

Col. HARTSHORN. If I may qualify your statement to the extent that we have supervision and coordination over those selling agencies.

Mr. ANTHONY. But there is a selling agency in each one of the different departments?

Col. HARTSHORN. Yes, sir; that is true. It frequently happens that there are lots of surplus stores available for sale in which more than one bureau is interested. In that case it is necessary for the office of director of sales to reconcile the interests of these bureaus and to a certain extent bring them in accord on the procedure necessary.

SALES OF FROZEN BEEF.

Mr. ANTHONY. A year ago last July it was stated that the War Department had 65,000,000 pounds, I think it was, of frozen beef in storage. Have you disposed of that?

Mr. MORSE. There is no frozen beef for sale.

Mr. ANTHONY. What did you do with the 65,000,000 pounds of frozen beef in storage a year ago last July?

Mr. MORSE. All the frozen beef that was surplus was sold. I can not tell you whether the entire 65,000,000 pounds was sold or not, for as I recall the figures available for sale it was around 30,000,000 pounds, with the exception—there was one sale made to the Belgian Government, and the rest of it was sold.

Mr. ANTHONY (interposing). That was a lot of 25,000,000 pounds sold to the Belgian Government, was it not?

Mr. MORSE. I think it was 15,000,000 pounds. That was some time ago. They asked for 25,000,000 pounds, but I think we sold them only 15,000,000 pounds. We advertised that frozen beef in lots of from five to ten million pounds over a series of three or four months, with rather poor success in moving it at the prices we were willing at that time to accept. Later in the winter, when trouble developed on the railroads at the time of the switchmen's strike in New York and some other centers, at that time we decided we would put a fixed price on that frozen beef of approximately, as I recall the figures, of 10½ or 11 cents a pound as it was in the freezers, making it available, and we so advised all of the mayors and governors affected at that time, and who reported a serious food shortage, and the beef was disposed of at that price, so we were told by the Surplus Property Division of the Quartermaster General's office. I understand that some of it was purchased at that price by some of the packing houses and resold. Some of it was sold direct to the butchers' associations.

Mr. CRAMTON. Do you know about what amount was sold to the packers?

Mr. MORSE. No, sir; I do not, without looking up the record.

Mr. CRAMTON. Will you put that in the record?

Mr. MORSE. Yes, sir.

1. Records of the Surplus Property Branch, Quartermaster General's office, as contained in report of Col. O. E. Hunt, Inspector General, dated October 23, 1920, show the following disposition of frozen beef between October 7, 1917, and July 29, 1920, during which time all surplus beef was sold.

2. Total declaration of surplus by Supplies Division was 60,848,122 pounds. From this withdrawals for the Army amounted to 9,450,583 pounds; balance to be disposed of, 51,397,539 pounds.

Sales:	Pounds.
Swift & Co.....	7, 326, 581
Armour & Co.....	2, 925, 848
Morris & Co.....	552, 023
Libby, McNeil & Co.....	1, 200, 000
Other purchasers in small lots.....	19, 211, 691
Belgian Government.....	15, 000, 000
Mr. Belmont Bloch.....	1, 000, 000
Other purchasers in carload lots or remaining on hand.....	3, 007, 402
From New York depot.....	258, 000
New Orleans Army retail store.....	915, 994
Total.....	51, 397, 539

SPOILAGE OF MEATS.

Mr. ANTHONY. Was any of it allowed to spoil?

Mr. MORSE. After it was declared surplus, not more than is bound to come along in the course of events in the freezers. That was a relatively short period of time after it was turned over for sale before it was sold. I should say the spoilage was very low. We had a great deal of trouble in obtaining butchers who knew how to handle frozen beef. Outside of the packers, there is almost no one who has the facilities for defreezing beef properly. The city of Cleveland has a public freezer, and they handled it there, and they bought several million pounds, and they did it very successfully.

Mr. ANTHONY. Was there any considerable amount of hams or bacon allowed to spoil before they were sold?

Mr. MORSE. There was one particular lot of hams reported to us as spoiled before it was sold. That is the only one I have in mind. But in general, so far as my knowledge goes, there was not any considerable quantity of either hams or bacon that was allowed to spoil before it was turned over and offered for sale.

Mr. ANTHONY. It was reported that there was one lot of 2,000,000 pounds of hams at Norfolk that were allowed to spoil before they were sold, and then they were sold for grease.

Mr. MORSE. That is not correct. Those hams were moldy. The inspection department of the Quartermaster Department had inspected those hams a very short time before they were sold and reported to us that they could be reconditioned, and they were sold at about two-thirds of the then market price for hams, and were sold very quickly after it was discovered that they were in that condition. The people who bought them claimed, when they got around to inspect them, that the inspection department of the Department of Agriculture would not allow them to be sold as food, and they have been endeavoring to establish a claim on that basis ever since. As to what the actual condition was, I can not tell you more than that.

SCRAPPING OF MACHINERY.

Mr. CRAMTON. I happened to be in Ohio about the 19th of October. I think, and I saw an item in a Toledo paper that related to the disposition of certain machinery in Toledo. I think it was steel lathes and that sort of machinery, which the news item said were being junked by being pounded to pieces by heavy equipment, although efforts had been made to purchase them. What have you to say about that?

Mr. MORSE. If we tried to answer every news item in detail we would have our hands full.

But we did have, of course, enormous quantities of single-purpose machine tools; in other words, lathes built during the war for the one purpose of turning shells. They were not adaptable to anything else and they could not, apparently, from the investigations made by the Ordnance Department and our own men, be rebuilt into a commercial article. There were quantities of those that were surplus, and they have been sold at auction and by negotiations, in some instances for pretty close to scrap value, and where they have been sold for scrap we have endeavored to mutilate them so they would be used as scrap. But the average of the sale of that class of machinery—we have sold some of them as machines—but when we have to put them

in the so-called scrap class the average value we have received for those tools has been about double the scrap value.

Mr. CRAMTON. What is the idea of mutilating expensive machinery like that; to protect the manufacturer?

Mr. MORSE. To protect the Government, possibly, from expensive—

Mr. CRAMTON (interposing). From an error in judgment?

Mr. MORSE. I do not think so.

Mr. CRAMTON. If the machines were capable of use without being mutilated—

Mr. MORSE (interposing). It is not mutilated until we are sure it is not capable of use, and I do not think many of them have been so mutilated; none of them has come to my knowledge, but there has been talk of whether it was not possible when those machines have to be sold for scrap to sell them as scrap.

Mr. CRAMTON. If the Government were sure it was not capable of use it would not be necessary to mutilate it, but if the Government was in error in its judgment they would make sure by mutilating it?

Mr. MORSE. That is something I am not in a position to say, whether they would or not. But I know of no machines that have been mutilated in that way.

Mr. CRAMTON. You have no knowledge of the mutilation of those machines in Toledo?

Mr. MORSE. No. I do know that no standard or commercial machine tools have been mutilated, and the work that has been done in the sale of machine tools has been very well done. We have transferred thousands of them to the schools of the country under the so-called Caldwell bill, and they have been very pleased with the results in almost every instance. They have not been able to get all of the machines they wanted because all the schools want the same class of machines.

PERCENTAGE OF TOTAL COST REALIZED FROM SALES OF CANTONMENTS, CAMPS, PLANTS, LANDS, BUILDINGS, ETC.

Mr. SLEMP. I want to ask you just one question which is not related to this particular subject. Can you give us the percentage of salvage value at the various camps and cantonments and plants that you have sold, and then divide that into real estate, buildings, material, and so forth? I would like to know how you came out on your disposition of the camps, cantonments, and so forth?

Mr. MORSE. I can not take the sale of a plant and tell you what we got for the land and for the buildings. It is a lump-sum sale, and those items could not be segregated.

Mr. SLEMP. Take, for example, the plant at Nashville, Tenn.

Mr. MORSE. That was sold at one price.

Mr. SLEMP. What was the salvage value of the buildings and of the land? Did you not estimate that in some way?

Mr. MORSE. There was an estimate made on that, but the only estimate I had in our office was a bulk estimate of the total, but I think I can obtain that from the Ordnance Department.

Mr. SLEMP. I suppose in most of the plants that is not possible. Most of them were temporary structures.

Mr. MORSE. Particularly the camps. All of those properties are appraised before the sale is completed by boards of the War Department?

Mr. SLEMP. Take them as a whole. Take a camp or cantonment, what percentage of the total cost did you finally realize out of the plants?

Mr. MORSE. We can give you that.

Mr. SLEMP. It was very small, was it not?

Mr. MORSE. Yes.

Mr. SLEMP. What was the percentage of recovery, taken all together?

Mr. MORSE. Outside of the cantonments——

Mr. SLEMP (interposing). Give us a sample of the cantonments you sold.

Col. HARTSHORN. About 5 or 10 per cent, I should say.

Mr. SLEMP. Take Nitro, what was that?

Mr. MORSE. The total return from Nitro was 14½ per cent.

Mr. SLEMP. That included the material?

Mr. MORSE. That is the percentage of cost; that included everything that was there that was sold out of there—land, buildings, the loose material, and the manufactured material.

Mr. SLEMP. You practically could get nothing out of the buildings at all?

Mr. MORSE. You get practically nothing out of all your facilities, such as roads, sewers, water works, and systems of that kind, particularly those underground.

Mr. SLEMP. What about the railroads and things of that kind?

Mr. MORSE. The railroad is of pretty good salvage value.

Mr. SLEMP. What did you get out of the plant at Nashville?

Mr. MORSE. About 9 per cent, I think.

Mr. SLEMP. Was the railroad included in that 9 per cent?

Mr. MORSE. Yes; it is a relatively small proportion of the cost, but as it goes it has a pretty good salvage value.

Mr. SLEMP. Of this \$150,000 you asked for in the item for contingencies of the Army, \$50,000 is for some other department?

Gen. LORD. For the regular contingencies of the Army. While the director of sales is here, I wish to invite attention to the last line on page 2, part of the second proviso, "*Provided further*, That the Secretary of War be, and he is hereby, authorized, in his discretion, to sell to any State or foreign Government with which the United States is at peace at the time of the passage of this act." If we should resume peaceful relations with Germany after the passage of this act, this phraseology would prohibit sales to Germany, and we thereby lose a good customer.

Mr. MORSE. I believe that could very well be eliminated, and you might say, "to sell to any nation with whom we are at peace." The original act that was passed restricted our sales to any Government which was at war with any nation that we were at war with, and at my request they changed that last year to make it read any nation with whom we are at peace.

Mr. ANTHONY. What would be the harm in simply saying to sell to any State or foreign Government?

Mr. MORSE. Personally, I would like to see it that way.

Gen. LORD. It might be amended to read "at the time of the sale."
(The statements above referred to are as follows:)

Tabulation showing, by selling office and by classification of material, total amounts of sales of surplus war supplies reported to Director of Sales, Dec. 3, 1920, to Dec. 10, 1920, inclusive, also sales to date.

Classification.	Air Service.			Chemical Warfare Service.			Corps of Engineers.		
	Sale.	Cost.	Per cent.	Sale.	Cost.	Per cent.	Sale.	Cost.	Per cent.
Aeroplanes and equipment ¹	\$507.75	\$158.85	36						
Building material and utilities.....	57.13	(²)							
	324.98								
Chemicals, acids, and explosives.....	3.53	(²)							
Clothing and equipage.....	286.30	779.38	37						
	172.90	(²)							
Electrical equipment ¹	357.95	1,111.57	32				\$500.00	\$5,500.00	9
							51.00	(²)	
Ferrous metals, including scrap.....	17.41	72.89	24						
	275.98	(²)							
Nonferrous metals, including scrap.....	15.15	47.47	32						
	187.87	(²)							
Fuels.....	562.50	(²)							
	22,995.57	34,924.66	66						
Hardware.....	633.09	(²)							
Leather.....	652.50	334.80	195						
Machinery and engineering equipment ¹	31.36	23.74	132				1,900.00	5,925.00	30
Motor and miscellaneous vehicles, and equipment.....	16.68	77.92	21						
Office and household equipment.....	31.21	34.05	92						
	88.93	134.28	66						
Oils, greases, etc.....	22.09	(²)							
Packing containers.....	216.97	1,203.71	16						
	1,525.00	(²)							
Textiles, exclusive of wool.....	9.00	39.39	25						
	105.00	(²)							
Unclassified.....	182.10	266.25	68						
Total known cost.....	25,466.01	39,208.93	65				2,300.00	11,425.00	20
Total unknown cost.....	3,812.94						51.00		
Period sales.....	29,278.95						2,351.00		
Previous sales:									
Known cost.....	21,315,590.91	54,144,381.72	39	{ \$1,875,036.90	\$7,322,158.59	26	{ 105,702,346.88	124,348,313.19	85
Unknown cost.....	4,215,098.07			{ 101,011.98			{ 6,968.50		

Tabulation showing, by selling office and by classification of material, total amounts of sales of surplus war supplies reported to Director of Sales, Dec. 3, 1920, to Dec. 10, 1920, inclusive, also sales to date—Continued.

Classification.	Air Service.			Chemical Warfare Service.			Corps of Engineers.		
	Sale.	Cost.	Per cent.	Sale.	Cost.	Per cent.	Sale.	Cost.	Per cent.
Totals to date:									
Known cost	\$21,341,056.92	\$54,183,590.68	39	\$1,875,036.90	\$7,322,158.59	26	\$105,704,646.88	\$124,359,738.19	85
Unknown cost	4,218,911.01			101,011.98			7,019.59		
Sales to date:	25,559,967.93			1,976,048.88			105,711,666.38		
Government transfers gratis:									
Period	97,500.00	97,500.00							
Total	1,836,541.13	1,836,541.13		58,459.88	58,459.88		4,888,346.03	4,888,346.03	

Office of Quartermaster General.

Classification.	Construction Division.			Surplus Property Branch.			Transportation Service, M. T. Division.			Transportation Service, Water Division.		
	Sale.	Cost.	Per cent.	Sale.	Cost.	Per cent.	Sale.	Cost.	Per cent.	Sale.	Cost.	Per cent.
Chemicals, acids, and explosive												
Clothing and equipage.				\$5.00	\$15.00	33						
Lumber.	\$16,914.17	(1)		687,122.24	1,559,875.06	44						
Medical, hospital, and labora-				160.13	336.32	48						
tory supplies.				148.80	316.80	47						
Small arms and small arms				30,043.33	49,503.50	61						
ammunition.				28,815.60	41,331.20	70						
Subsistence.				18,689.37	37,503.08	50						
Textiles, exclusive of wool.												
Unclassified.												
Total known cost.				764,984.47	1,688,880.96	45						
Total unknown cost.	16,914.17											
Period sales.	16,914.17			764,984.47								
Previous sales:												
Known cost.	1,254,784.49	3,195,083.56	39	398,742,887.19	538,605,243.58	74	\$2,319,842.29	\$12,925,857.46	18	\$1,947,114.76	\$4,998,683.97	39
Unknown cost.	4,792,239.28			48,408,828.09			177.50			310,827.56		
Totals to date:												
Known cost.	1,254,784.49	\$3,195,083.56	39	399,507,871.66	540,294,124.54	74	2,319,842.29	12,925,857.46	18	1,947,114.76	4,998,683.97	39
Unknown cost.	4,809,153.45			48,408,828.09			177.50			310,827.56		
Sales to date.	6,063,937.94			447,916,697.75			2,320,019.79			2,257,942.32		
Government transfers gratis:												
Period.							140,514.65	140,514.65				
Total.				16,018,867.11	16,018,867.11		70,907,143.69	70,907,143.69				

Tabulation showing, by selling office and by classification of material, total amounts of sales of surplus war supplies reported to Director of Sales, Dec. 3, 1920, to Dec. 10, 1920, inclusive, also sales to date—Continued.

Classification.	Ordnance Department.			Signal Corps.			Total for week.			Total to date.		
	Sale.	Cost.	Per cent.	Sale.	(oil.	Per cent.	Sale.	Cost.	Per cent.	Sale.	Cost.	Per cent.
Aeroplanes and equipment							\$507.75			\$5,948,718.58	\$27,265,650.67	22
Animals										45,769.90	(²)	
Artillery and Artillery ammunition										21,320,615.73	34,307,389.86	62
Building material and utilities										789.75	(²)	
Chemicals, acids, and explosives	\$14,138.59	\$24,936.48	57				14,195.72	\$25,095.33	57	1,296,329.47	1,890,948.46	69
Clothing and equipment	5,627.41	(²)					5,952.39	(²)		47,257.70	(²)	
Electrical equipment	1,494.37	(²)					1,497.90	(²)		4,301,409.13	9,095,303.49	47
Ferrous metals, including scrap	1,194.19	4,196.12	28				688,602.73	1,564,850.56	44	33,516,549.90	36,587,016.24	82
Nonferrous metals, including scrap	100.00	1,103.63					5.00	15.00	33	3,562,483.36	(²)	
Fuels	224,615.12	2,498,316.28	9				172.50	(²)		24,290,097.50	50,384,233.89	48
Hardware	64,024.02	(²)					957.95	7,715.20	12	5,570,512.24	(²)	
Land and buildings	14,569.55	43,438.89	34				51.00	(²)		1,767,126.71	2,880,885.92	61
Leather	269,120.63	(²)					224,632.53	2,448,389.17	9	496,838.70	(²)	
Lumber	19,174.24	(²)					64,300.00	(²)		19,661,417.91	88,069,694.47	22
Machinery and engineering equipment	216.10	394.56	55				14,584.70	43,486.36	34	10,862,497.36	(²)	
Machine tools	33.50	(²)					269,308.50	(²)		32,920,586.29	66,074,282.66	50
Metal, hospital, and laborator supplies	3,859.90	(²)					19,736.74	(²)		19,312,631.15	(²)	
Motor and miscellaneous vehicles and equipment	19,174.24	(²)					23,211.67	35,319.22	66	720,653.75	1,417,216.42	51
Nonmetallic scrap	216.10	394.56	55				666.59	(²)		125,653.86	(²)	
Office and household supplies	33.50	(²)					3,859.90	(²)		2,904,590.46	6,994,157.22	42
							652.50	334.80	195	705,160.97	(²)	
										15,271,570.38	90,142,176.66	17
										5,255,852.60	(²)	
										6,454,737.56	8,166,161.10	79
										37,204.17	(²)	
										1,853,505.77	4,258,021.79	44
										3,523,412.55	(²)	
										9,224,772.51	18,136,600.76	51
										717,670.51	(²)	
										11,911,734.80	27,050,369.36	44
										2,354,490.46	(²)	
										1,176,913.82	2,237,075.90	53
										15,470.75	(²)	
										3,907,947.06	17,608,064.30	22
										111,465.91	(²)	
										195,440.96	2,039,378.83	10
										3,640,772.54	(²)	
										464,455.81	811,013.15	37
										33,056.08	(²)	

List of material authorized for transfer to other governmental departments under authority of Executive orders and acts of Congress as reported by the transfer and inventory section, Office of the Director of Sales, up to and including Nov. 30, 1920.

ARMY APPROPRIATION BILL, 1922.

	Sub- sistence.	Cloth- ing, equi- page, medical, and hospital supplies.	Leath- er, har- ness, and an- imals.	Office and house- hold equip- ment.	Trans- porta- tion equip- ment.	Elec- trical equip- ment.	Build- ing material.	Acids, chemi- cals, ex- plosives, paints, and oils.	Ferrous and non- ferrous metals.	Tex- tiles.	Arms, and ammu- nition.	Air- craft.	Ma- chinery and equip- ment.	Vehicles.	Miscel- laneous.	Total.
Treasury Department, (General Supply Committee, Execu- tive order, Dec. 3, 1918. All departments (Pub. 5, 66th (Cong., July 11, 1919):															\$1,478,632	\$1,478,632
Agriculture		\$4,964		\$354						\$254			\$250			15,822
Commerce		2,197		575				\$26		535			180	\$4,210		17,758
Interior	\$60,584	9,159	\$148	254	\$1,359	1,000	\$630		\$20	3,240			180		145	176,719
State		29,390		74										1,290		130,812
Navy	6,264	113	2,820	2,531		2,611		41,453			\$87,702	\$935,246	40	27,003		1,105,783
Post Office		530		933												11,523
Treasury		756	879	49,258	3,026		2,074			3,014			2,906	517		162,430
Miscellaneous																
Commissioners of District of Columbia								684								1684
Federal Board of Voca- tional Training																
Inland and Coastwise Waterways Service																111,494
Interstate Commerce Com- mission																142
Library of Congress																
Panama Canal										47						11,101
Social Hygiene Board		836	2,010		636	411	100	2,907	876							17,776
State, War and Navy Building																119
United States Labor Board		9														19
United States Shipping Board																
Treasury Department, (General Supply Committee (Pub. 275, 66th Cong., Feb. 26, 1919)																
Treasury Department, Public Health (Pub. 126, 66th Cong, Mar 1 1919																
at Department of Health																
		1,010,299		4,962		14,000							18,000	1,732,634		2,788,185
														12,454		12,454

THURSDAY, DECEMBER 16, 1920.

WAR DEPARTMENT CLAIMS BOARD.

**STATEMENT OF COL. JOHN A. HULL, CHAIRMAN, ACCOMPANIED
FIRST LIEUT. E. T. BARCO.**

Mr. ANTHONY. Colonel, is your work allied with the work of the office of the Director of Sales?

Col. HULL. Mainly, by our appropriation being under the same clause. I have more dealings with the Chief of Finance than with the office of Director of Sales.

Mr. ANTHONY. Do you not get a good deal of the money necessary for the conduct of your board from other appropriations?

Col. HULL. Some of the boards maintain themselves entirely. What we know as the Air Section of the War Department Claims Board; they maintained their organization themselves, although their head is a member of the War Department Claims Board, and their action is approved by the Claims Board. Also in the field a great share of the auditing now going on is being paid for by the Ordnance Department because that is the department in which the work is being done.

PROGRESS OF WORK.

Mr. ANTHONY. Last year it was stated by a representative of that board before the Committee on Military Affairs, Mr. Fairbanks, that the work of your claims board would be practically finished by June 30, 1920. Can you tell us how far the work has progressed and why it has not been cleaned up by the date then set as the time when it would be completed?

Col. HULL. I took it up the 1st of July, the date there mentioned when the work would be completed. Col. Fairbanks left the service on that date.

There is no question that the work has been made very hard and still continues on account of the optimistic statements of my predecessors. They made no adequate provision for carrying on the work in a proper way during this fiscal year.

At that time I had Lieut. Barco, who is here and who was at that time the statistical officer, make a record and set up a correct docket of the War Department Claims Board. I have here his report under date of December 1, 1920, which I would like to read to the committee.

Mr. ANTHONY. If it shows the number of claims which have been before the board and the number that have been adjusted and the number still remaining to be adjusted, I think we would like to have it.

Col. HULL. The report says:

On July 1, 1920, there were before the War Department Claims Board for adjustment approximately 2,400 contracts. Of this number, 1,100 were formal and informal contracts taken over from the previous board; 220 were cases on appeal to the Secretary of War; 60 were patent cases; and 1,000 were G. O. cases.

On November 30, 1920, there were before the War Department Claims Board for adjustment 604 contracts. Of this number, 364 were cases on appeal to the Secretary of War; 60 were patent cases; and 133 were G. O. cases.

It will be seen that during the period from July 1 to November 30 the various sections of the War Department Claims Board eliminated approximately 1,800 contracts. In other words, 75 per cent of the cases which were on hand July 1, 1920, were eliminated by November 30, 1920.

During this period awards amounting to \$38,443,000 were made on 617 contracts, the uncompleted portion of which was \$268,721,000. A net saving of \$29,278,000 was effected. These contracts were, therefore, settled at a rate of 143 cents on the dollar.

Mr. ANTHONY. All this work has been carried on in pursuance of what is known as the Dent Act?

Col. HULL. Part of it comes under the Dent Act, while part of the claims were under formal contracts. Some of the cases come to the appraisal section under the national defense act, where we commandeered supplies. The claims arise in every conceivable way.

Mr. ANTHONY. How long is it going to take you to clear up the jacket?

Col. HULL. The appraisal section in its last report showed that there were 133 so-called General Order cases. That is work which the Army has always done and it will continue. Of course we have had an increased amount, due to the enlarged activity of the Army. Some of these cases are still coming in. From the establishment of the cantonments and the cleaning out of the cantonments and the various camps. In other words, if we utilize real estate in connection with any of our installations, a case arises.

CURRENT EXPENSES TO DATE.

Mr. ANTHONY. What has been the cost to the Government of the operation of the War Department Claims Board so far during the present fiscal year?

Lieut. BARCO. I have included in that the cost of the salaries of all the commissioned officers, and therefore the cost of the salary of the Assistant Secretary of War also appears there, although he gives a very small amount of time. The same is true with the Director of Supplies, Gen. Wright, who from necessity gives a very small amount of time, whose salary is carried in the cost. The total cost was \$529,758.49. I have a comparative statement.

Mr. ANTHONY. What period does that cover?

Lieut. BARCO. From July 1 to October 31.

Mr. ANTHONY. Of the present year?

Lieut. BARCO. Yes, sir.

(The statement referred to is as follows:)

Operation cost of War Department Claims Board and all subsidiary sections, with ratio of cost to amounts involved in settlements effected.

1	2	3	4	5	6	7	8
Date up to, or month ending—	Operation cost of War Department Claims Board and subsidiary boards.	That portion of obligations at time of curtailment which relates to contracts and claims settled.	Percentage of operation cost of claims board (column 2) to outstanding obligations under contracts and claims settled (column 3).	Savings effected by final payments approved in cancellation of outstanding obligations of contracts and claims settled.	Percentage of operation cost of claims board (column 2) to savings effected by final payments (column 5).	Amount approved for payment in partial and final settlement.	Percentage of operation cost claims board (column 2) to amount approved for payment in partial and final settlement (column 7).
12 months up to Dec. 31, 1919 (a).....	\$8,554,969.26	\$1,931,794,821.75	0.44	\$1,748,041,784.18	0.49	\$282,336,765.66	3.02
18 months up to June 30, 1920 (a).....	10,952,200.87	3,108,651,146.07	0.35	2,699,236,703.28	0.41	434,474,989.94	2.32
19 months up to July 31, 1920 (a).....	11,122,000.76	3,170,820,663.13	0.35	2,757,476,623.98	0.40	438,404,588.32	2.34
20 months up to Aug. 31, 1920 (a).....	11,275,252.05	3,282,546,757.14	0.34	2,848,107,799.16	0.40	459,499,507.13	2.45
21 months up to Sept. 30, 1920 (a).....	11,386,914.02	3,300,322,135.22	0.35	2,862,609,085.98	0.40	462,773,598.39	2.46
22 months up to Oct. 31, 1920 (a).....	11,472,959.36	3,358,874,654.63	0.34	2,912,465,898.85	0.39	473,415,993.94	2.42
June 30, 1920.....	302,926.71	164,202,107.78	0.18	138,436,148.39	0.22	22,736,655.40	1.35
4 months up to Oct. 31, 1920.....	520,758.49	250,223,508.56	0.21	213,229,193.57	0.24	38,941,004.00	1.34

NOTE.—The sum of columns 5 and 7 does not equal column 3 for the reason that column 7 includes partial payments.

Mr. ANTHONY. Where do those costs come in?

Lieut. BARCO. They are the salaries——

Mr. ANTHONY. Leaving out the salaries of the commissioned officers, because they are taken care of in other appropriations, what are the main items of the expense, and also deducting the salaries of any officers taken care of by the Government otherwise?

Col. HULL. For the month of October the following detailed statement of expense is submitted:

Operation cost of War Department Claims Board and all boards under its jurisdiction for month of October, 1920.

	Salaries of civilian personnel.	Traveling expenses of civilian personnel.	Office rental and other overhead.	Other expenses.	Total.
Appropriation, contingencies of the Army, 1921:					
War Department Claims Board.....	\$4,490.94	.....	.....	.....	\$4,490.94
Appeal section.....	2,571.76	.....	.....	.....	2,571.76
Appraisal section.....	1,343.36	.....	.....	.....	1,343.36
Ordnance section.....	3,320.25	.....	.....	.....	3,320.25
Purchase section.....	833.33	.....	.....	.....	833.33
Total.....	12,559.64	.....	.....	.....	12,559.64
Appropriation, Air Service of the Army, 1921:					
Air Service.....	13,923.50	1,050.46	100.00	200.00	15,273.96
Appropriation, Ordnance Service, 1921 (pay of accountants, special investigators, clerical help, etc.):					
Ordnance, field.....	22,531.24	2,170.62	1,065.33	1,680.46	27,447.65
Appropriation, Quartermaster General, 1921:					
Construction division.....	267.50	.....	.....	.....	267.50
Purchase section.....	360.00	.....	.....	10.00	370.00
Transportation.....	306.67	.....	20.00	.....	326.67
Appeal.....	.....	.....	4.00	2,324.55	2,328.55
Appraisal.....	.....	.....	.....	612.34	612.34
Total.....	934.17	.....	24.00	2,946.89	3,905.06
Other appropriations:					
Engineer section.....	60.00	10.00	.....	5.00	75.00
Signal Corps section.....	116.00	.....	.....	.....	116.00
Total.....	176.00	10.00	.....	5.00	191.00
Grand total.....	50,124.55	3,231.08	1,189.33	4,832.35	59,377.31

Mr. ANTHONY. How much of the \$100,000 in this item will your claim board expend?

Col. HULL. Of this proposed amount for the fiscal year 1922 I made an estimate in October that there should be a permissive authorization for the Secretary of War to spend in the neighborhood of \$50,000. I think that was cut by the committee which revised the estimates. That was purely permissive and was put in there, as it was impossible to state at that time what the progress of the work would be. It was thought that the Secretary of War should have the authority to employ such accountants or clerks as necessary on the cases that might be extant on June 30, 1921.

CIVILIAN EMPLOYEES.

Mr. ANTHONY. Is your board employing the services of any civilian officers at this time?

Col. HULL. Yes; among them we have Mr. Van Fossen, who is a lawyer; Mr. Clark, who is a lawyer; and Mr. Purrington, who is a lawyer; and also two examiners, who are lawyers, with the Ordnance Department. On account of their special knowledge their knowledge is of great value to the Government.

Mr. ANTHONY. Are they paid on a per diem or an annual salary basis?

Col. HULL. All the per diem men have been discharged.

Mr. ANTHONY. What are the annual salaries of these lawyers?

Col. HULL. Van Fossen gets \$6,000. My recollection is that Mr. O'Brien gets \$3,000, and there are one or two examiners at \$1,800 each.

COMPLETION OF WORK.

Mr. ANTHONY. What is your judgment as to the length of time it will take you to wind up this work?

Col. HULL. The work progressed very, very rapidly in August. At that time I had great hopes that the job would be completed at a very early date. The work this month has progressed very slowly, and I was surprised to find that one of the largest contractors, when given orders to present his claim this month, declined to do so and demanded the right not to formulate his claim before the 15th of February. That was the United States Cartridge Co.

Mr. SLEMP. What is the limit of time on that; when do they have to file claims?

Col. HULL. Under the Dent Act by June 30, 1919, but the time for a formal contract is six years.

Mr. ANTHONY. Is this one you speak of a formal contract?

Col. HULL. Yes, sir.

Mr. ANTHONY. You have no way of compelling them to submit their claims in order to bring about an early adjustment?

Col. HULL. The only pressure I could exert is this: I have announced that the work of the board can not continue, that it was not the intention of the War Department to keep the board sitting there unless it had something to do, and furthermore that the appropriation which has been available to pay the awards will expire, unless Congress acts, on the 30th of June.

Mr. SLEMP. 1921?

Col. HULL. Yes, sir.

Mr. SLEMP. Then they will have to go before the Court of Claims?

Col. HULL. They will have to come to Congress to get an additional appropriation?

Mr. SLEMP. Or go to the Court of Claims.

Col. HULL. They could go to the accounting officer of the Treasury—

Mr. SLEMP. I suppose they could make an agreement with the War Department as to the amount and come to Congress for an appropriation?

Col. HULL. Yes, sir. It is inconceivable to me why some of the business men of the country are doing this sort of thing, especially when the appropriations are to cease on the 30th of June. I do not understand the attitude of the United States Cartridge Co.

Mr. ANTHONY. You show that the total cost to the Government for this work in October was \$86,045.34 for the conduct of all these claims boards. Can you separate the salaries of the commissioned personnel and show what the actual cost of your civilian organization is?

Col. HULL. Very easily.

Mr. ANTHONY. And what it will be for the next fiscal year?

Col. HULL. The trouble in connection with the next fiscal year is that there is no man on earth who can estimate what condition the new Secretary of War is going to find.

Mr. SLEMP. The 14 per cent in your saving is only for this fiscal year?

Col. HULL. Yes.

Mr. SLEMP. That is only about 1 per cent higher than that in the previous settlement.

Col. HULL. That is easily explained by the fact that there were a great many terminated for a nominal consideration. There were also a great number totally rejected, while the cases that have stood——

Mr. SLEMP. They were the hard nuts to crack?

Col. HULL. They were worse than that. They have been in the hopper and sifted until a great many of these are paid up to a considerable amount.

Mr. ANTHONY. In other words, the last ones have been the ones that have resisted the tentative offers of settlement made by the Claims Board and you have given them increased allowances largely.

Col. HULL. It means if you can not agree with the man in the beginning as to an approximately fair settlement you have to investigate and by auditing and searching try to ascertain the truth.

ECONOMY.

Mr. ANTHONY. What is your opinion as to the operation of these claims boards, that they are saving the Government money over what would be the result if they went to the Court of Claims?

Col. HULL. As operating now, I most emphatically think so.

Mr. SLEMP. The cost to the Government in defending a suit of that kind would be considerable?

Col. HULL. Yes; and it is not fair to a lot of these men to throw their cases into court unless they are grasping. A lot of these men are perfectly fair and they are willing to do business with the Government fairly, though the condition to-day is different from what it was at the inception. At the beginning of the work of these boards we had a condition, where, if the War Department had not acted, you would almost have had a financial panic.

Mr. ANTHONY. In these settlements you eliminated all probable profits?

Col. HULL. Yes, sir.

Mr. ANTHONY. And all problematical losses?

Col. HULL. Yes, sir.

Mr. ANTHONY. And they have been settled on a brass-tack basis?

Col. HULL. We have tried to settle them in that way.

Mr. ANTHONY. On the basis of the cost of the contract to the man who made it with the Government?

Col. HULL. I think there is no man connected with the service to-day who does not try to make a fair settlement, but one that is well within what the Government would lose if it was litigated.

BRANCH DISTRICT BOARDS.

Mr. SLEMP. Does your organization have branch organizations known as district claims boards throughout the United States?

Col. HULL. At one time the claims work had about 57 branch district boards, etc., scattered over the United States. At one time these branches were more or less independent. The effort has been

to consolidate them and unify the work, especially as they would die down, when a consolidation would be more economical, and to-day there is only the War Department Claims Board.

Mr. SLEMP. Located in Washington?

Col. HULL. Located in Washington.

Mr. SLEMP. You are spending at the rate of a million and a half dollars a year to run that board, if I understand it correctly; \$500,000 for four months is \$125,000 a month, and that would be a million and a half for a year.

Col. HULL. The expenses for each month are going down.

Mr. SLEMP. You had \$86,000 in October. That is on a basis of a million dollars a year.

Col. HULL. It is less than that now.

Mr. SLEMP. Does your estimate for next year take all the things you are spending money for now into consideration?

Col. HULL. No. At one time, in September, 1919, there was in the neighborhood of 8,000 men engaged in claim work. On November 1 of this year there were 342, and by glancing over the list you will find a number whose work was only incidental. For instance, we carried at that time four officers of Engineers, who constitute the Engineers' board. They are still carried in case anything should turn up from the Engineer Department; but the Engineers' docket is 100 per cent clean. They have no cases that I know of. Those four officers have been engaged in the last four months exclusively on work connected with the Engineer Department in Washington, except that during that time they have had probably four or five meetings. They are carried at the expense of the claims work, although they have met only two or three times. They are valuable to us in case we should need them. That is an extreme case.

Mr. SLEMP. You were spending at the rate of a million and a half dollars during this fiscal year, and you are asking for only \$50,000 for the next fiscal year.

Col. HULL. That large expenditure is on the basis of the prior expenditures. But the cost during this month is much less, and next month it will probably be only half of that.

ESTIMATE FOR CIVILIAN ASSISTANTS.

Mr. SLEMP. So you can get along next year with \$50,000?

Col. HULL. That is for our civilian assistants.

Mr. SLEMP. Do you get any other money out of any other appropriation?

Col. HULL. The officers are paid out of the Army appropriation bill. I have done away with all the high-price civilians except four or five of them.

Mr. SLEMP. In regard to the uncontested claims, you have Government reports on file in regard to all of those?

Col. HULL. Not all of them.

Mr. SLEMP. Will you be able to complete all of that work by the end of the fiscal year with the present force, so that the Government will know its own attitude in regard to these claims?

Col. HULL. Except some of the old cases where we may want a reaudit and where we may discover a condition that makes it highly advisable to reaudit.

Mr. SLEMP. So far as the Government can go, either to settle or to show what its attitude is, you can get all that work done by the end of the fiscal year?

Col. HULL. I hope to, with the exception of some reauditing that may be necessary.

Mr. SLEMP. The money has been reserved for the payment of all these claims out of a previous appropriation?

Col. HULL. Out of the war appropriation.

Mr. SLEMP. Have you prepared a statement as to the amount of money that would revert to the Treasury?

Col. HULL. We can not do that until the end of June.

Mr. SLEMP. Could you do it as of date of the 1st of December? You are getting down nearly to the bottom. You could calculate that on the 14 per cent basis and make an estimate.

Col. HULL. If you could calculate on a basis of 15 per cent, or 15½ per cent——

Mr. SLEMP. I think Congress ought to insist upon the reservation proposition being cleaned up completely and enough money reserved on a 15 per cent basis to complete all of these informal and other contracts by the 1st of July, and if they do not appear then let them go to the Court of Claims or come to Congress.

RESERVATIONS.

Mr. ANTHONY. What do you mean by reservation?

Mr. SLEMP. The money which has been reserved by this appropriation out of which they can pay the claims as they arise.

Col. HULL. That reverts to the Treasury on the 30th of June unless Congress acts. It is only reappropriated for one year.

Mr. SLEMP. We ought to get it cleared up before that, so that you will know what your obligations will be next year.

Mr. ANTHONY. During the next fiscal year where will you get the money to pay these claims?

Col. HULL. They would have to come to Congress for it.

Mr. ANTHONY. Are you asking for any money for that purpose?

Col. HULL. No, sir.

Mr. ANTHONY. It will be dependent upon the future action of Congress?

Col. HULL. Yes, sir.

Mr. ANTHONY. Will there be a considerable unexpended balance?

Gen. LORD. I think so.

Mr. ANTHONY. I wish you would make your statement complete as to the operations of the claims board. You can put that in the record.

Col. HULL. A full report has been made to Congress by the Secretary of War, dated December 4, 1920. I have a statement of the operation cost of the War Department claims board which I think you would like to have, and a summary of the reports of settlement of contract adjustments up to date, which gives a complete summary of the operations. I can also give you a very short abstract of the state of our docket at the end of each month, from June 30, 1920, to November 30, 1920.

Operation cost of War Department Claims Board and all boards under its jurisdiction for month of October, 1920.

	Salaries of commissioned and civilian personnel.	Traveling expenses of commissioned and civilian personnel.	Office rentals and other overhead.	Other expenses entering into claim.	Total.
War Department Claims Board.....	\$8,640.94				\$8,640.94
Appeal section.....	10,626.76	\$200.00	\$4.00	\$2,324.55	13,155.31
Appraisal section.....	5,411.99	214.94		612.34	6,239.27
Air Service section.....	15,190.90	1,070.46	100.00	200.00	16,561.36
Chemical Warfare section ¹					
Construction section.....	467.50				467.50
Engineer section.....	210.00	55.00		5.00	270.00
Ordnance section ²	31,837.00	2,559.00	1,065.33	1,680.46	37,141.79
Purchase section.....	2,490.21	15.90		10.00	2,516.11
Signal Corps section.....	481.40				481.40
Transportation.....	571.67		20.00		591.67
Total.....	75,928.37	4,095.29	1,189.33	4,532.35	\$86,045.34

¹ No costs.² For details see Exhibit A attached.

Summary report of contracts and agreements requiring settlement or adjustment, Nov. 30, 1920.

Section.	June 30.	July 31.	Aug. 31.	Sept. 30.	Oct. 31.	Nov. 30.
Ordnance.....	346	334	323	272	241	220
Purchase.....	115	73	47	41	35	31
Air Service.....	251	218	115	70	55	40
Engineer.....	2	2	1	1	1	(1)
Imperial Munitions Board.....	15	8	3	3	3	1
Chemical Warfare.....	9	2	2	(1)	(1)	(1)
Signal Corps.....	40	31	21	6	3	1
Construction.....	19	25	16	11	11	9
Appeal:						
Dent.....	185	168	151	47	26	20
G. O.....	19	18	13	9	4	3
Appraisal:						
Dent.....	74	53	45	35	31	14
G. O.....	977	631	286	173	151	141
Secretary of War.....	220	196	189	178	93	47
Patent.....	160	160	160	160	160	160
Transportation.....	(1)	(1)	(1)	(1)	(1)	(1)
Classification.....	(1)	(1)	(1)	(1)	(1)	(1)
Total.....	2,332	1,819	1,272	906	714	644
Net reduction.....		513	547	366	192	111

¹ None.² Estimated.

Summary report of settlements of contracts and adjustments of agreements up to Nov. 27, 1920.

1	2	3	4	5
	Number of contracts and agreements submitted for settlement or adjustment.	Estimated obligations on suspended contracts and agreements outstanding at time of curtailment.	Number of contracts and agreements settled or adjusted to date.	That portion of obligations at time of curtailment which relates to contracts, etc., settled to date (column 4)
Formal.....	19,084	\$1,801,215.66	19,020	\$1,711,363.62
Informal ¹	7,033	1,804,795,939.52	6,726	1,682,000.10
Total.....	26,117	3,786,011,605.18	25,746	3,393,363.72

These amounts have been approved for payment on the remaining contracts and agreements in process of settlement or adjustment.

¹ Under act of Congress of Mar. 2, 1919.

² In addition, there are 1,596 claims upon which relief has been denied.

Summary report of settlements of contracts and adjustments of agreements up to Nov. 27, 1920—Continued.

	6	7	8	9
	Amount ap- proved for pay- ment in final set- tlement or final adjustment to date.	Percentage of amount ap- proved for pay- ment (column 6) to outstanding obligations under contracts and claims settled or adjusted (column 5).	Amount ap- proved for pay- ment on partial settlements or partial awards.	Savings effected by final payments approved (col- umn 6) in can- cellation of out- standing obliga- tions of contracts, etc. settled (col- umn 5).
Formal.....	\$224,277,418.55	12.9	¹ \$12,658,968.52	\$1,517,086,204.90
Informal ²	230,572,707.20	13.9	¹ 12,424,378.38	1,431,465,400.16
Total.....	454,850,125.75	13.4	¹ 25,013,364.90	2,948,551,604.96

¹ These amounts have been approved for payment on the remaining contracts and agreements now in process of settlement or adjustment.
² Under act of Congress of Mar. 2, 1919.

Gen. LORD. Mr. Chairman, this estimate is made up of three different activities. Fifty thousand dollars covers the first 16 lines of the item for the usual contingent expenses of the Army. The totals submitted by the War Department Claims Board and the Director of Sales were in excess of \$100,000, and that makes up the balance. The Secretary of War reduced that to \$100,000 and figured that he would keep the expenses within that amount, so the \$100,000, if it is given, will eventually be apportioned to these two activities by the Secretary of War, according to what he considers their needs.

THURSDAY, DECEMBER 16, 1920.

SETTLEMENT OF FOREIGN CLAIMS.

STATEMENT OF MAJ. E. B. PIERSON, ASSISTANT CHIEF, EXTERNAL RELATIONS SECTION, SUPPLY DIVISION, GENERAL STAFF.

Mr. ANTHONY. Major, your section, I believe, has charge of the work of making settlements in connection with the operations of the so-called Parker Board, in France?

Maj. PIERSON. My principal duties are to answer any inquiries regarding the settlements made by the United States Liquidation Commission of the War Department, the special representative of the Secretary of War, and the allied activities, for which they made contracts with various foreign Governments relating to the claims arising from the present war.

Mr. ANTHONY. And in connection with sales of property?

Maj. PIERSON. Sales made by the liquidation commission of surplus property abroad.

ESTIMATED EXPENDITURE.

Mr. ANTHONY. How much of this appropriation does your section intend to use out of this \$100,000?

Maj. PIERSON. A very small amount. We have two clerks at \$3,000 a year each, and two clerks at \$1,300 a year each, that we have retained as a very necessary thing.

PRESENT DUTIES.

Mr. ANTHONY. All of the real business has been transacted and you simply are maintaining the records and answering inquiries?

Maj. PIERSON. And there are a few contracts that require the figures for their final determination, and when those figures have been determined it requires the actual closing up of that particular contract.

Mr. ANTHONY. That is, the Governments abroad may contest some clause of the contract that requires interpretation?

Maj. PIERSON. There are certain contracts—there was a recent one where there were certain items intended to be covered by the contract as awarded by the War Court of Claims of Great Britain, and it was decided that it was the best policy to let them decide the amount for which we would be liable for the use of certain property and when that was determined we, knowing that it would be less than a certain figure that would have to be paid by the War Department, could give exact information.

CLAIMS PENDING.

Mr. ANTHONY. Your division is passing on claims by various Governments for the use of property by the United States during the war?

Maj. PIERSON. Both property and personal damages.

Mr. ANTHONY. Have you any considerable amount of such claims still pending?

Maj. PIERSON. There are certain claims that have been presented on which preliminary examination has been made, that pertain principally to damages to scows and vessels in the various harbors of France and England—principally France—that were due to certain collisions during the war.

OBLIGATIONS ASSUMED BY FRANCE AND ENGLAND.

Mr. ANTHONY. But, in the settlement which the Parker Commission made with the French Government, the French Government assumed liability for the payment?

Maj. PIERSON. They did.

Mr. ANTHONY. And in England we have already negotiated and arranged for the settlement of the claims?

Maj. PIERSON. Yes.

Mr. ANTHONY. But there have been some that have cropped up since the other board completed its work, and your board has worked on that?

Maj. PIERSON. Yes. Many claims come to the attention of the Government of the United States as individual claims which are really included in these contracts, and a proper reference and examination of the record is necessary so that no error is made in informing an individual of the actual status of his claim against the United States or against the foreign governments.

RETENTION OF TWO CLERKS.

Mr. CRAMTON. Did I understand you to say you had two clerks at \$3,000 each?

Maj. PIERSON. Yes, sir.

Mr. CRAMTON. What sort of clerks are those?

Maj. PIERSON. One of them is the man who was the chief clerk of Judge Parker's commission, and because of his familiarity with the records we considered it essential that he should be retained. The other one was connected with the office of the special representative of the Secretary of War. He is an accountant by profession, and it is necessary in many cases to test the figures when our examinations are made, and the qualifications of those two men are very essential in the examination of the records.

Mr. SLEMP. Do you see any necessity for keeping those men during the next fiscal year?

Maj. PIERSON. I think it is essential, unless the Government is going to cease examining into the inquiries which are made.

Mr. CRAMTON. Is it not possible to secure the services of an accountant otherwise, for the very occasional use you have?

Maj. PIERSON. The occasional use of an accountant would be absolutely of no value, unless he is familiar with the records and can find them. Otherwise he would be of no value in there at all. Then, too, his duties are not only those of an accountant, but his familiarity with the records of the special representative of the Secretary of War makes him valuable as a file clerk.

Mr. SLEMP. We have no claims of foreign Governments?

Maj. PIERSON. There are no claims not covered by agreement of some kind.

Mr. SLEMP. But you would refer those claims, would you not, writing a letter saying the letter of the claimant had been received and referred?

Maj. PIERSON. It requires the search of 12 truck loads of records to find out whether that claim has been considered by the War Department or not.

Mr. CRAMTON. If one of those clerks were to leave, you would be in a serious situation?

Maj. PIERSON. There are clerks on call who could be recalled for particular service, if needed.

Mr. CRAMTON. At \$3,000 a year?

Maj. PIERSON. No, sir; not at that low figure.

CLAIMS ARISING IN FRANCE.

Mr. SLEMP. Suppose a claim came from somebody in France. It is settled by the French Government, and you simply write to the claimant.

Maj. PIERSON. But I must know that the claim is one of the description which has or has not been paid—for instance, claims for current supplies furnished or services rendered are still payable.

Mr. SLEMP. You mean if a Frenchman drove a truck for us over there as a civilian employee that would not have been settled?

Maj. PIERSON. Yes; and if we had a civilian who had a claim under what is known as the *vie chere*—French high cost of living—

law, those claims are referred to the Quartermaster General for proper attention.

Mr. SLEMP. All claims that could arise in France against us are not settled?

Maj. PIERSON. They are referred to the proper service for attention in case they need attention. Otherwise they are answered to the claimant, telling him plainly what the status of the claim is.

Mr. ANTHONY. Are there any claims in France not taken care of by the Parker commission settlement, or have any arisen?

Maj. PIERSON. Yes; there are some claims under the high cost of living law that are being paid currently, as the evidence becomes available. The actual passing of those claims is not made in our office, except to determine the nature of the claim and of the service rendered the Government.

Col. HULL. Permit me to suggest, Mr. Chairman, that if in the removal of bodies from France to-day we would have accidents, or some damage was done, there might be a claim. I doubt if any claims would arise that would be based on the Parker agreement.

Mr. ANTHONY. Were you in France, Major?

Maj. PIERSON. No, sir. I was called in after the armistice to become associated with this particular section in the War Department, and I have been right here and have grown up with the activities of the liquidation commission.

Mr. ANTHONY. It would not be fair to ask you any questions in reference to that magnificent gift to the French Government?

Maj. PIERSON. What gift?

Mr. ANTHONY. The settlement made by the Parker commission.

Maj. PIERSON. I am familiar with the facts.

Mr. SLEMP. Are there many claims coming in for consideration on which you have to work?

Maj. PIERSON. Yes, sir; we have work to keep us busy at the present time. I should say we really need three officers. There is only one officer there now.

Mr. SLEMP. What about the clerical force?

Maj. PIERSON. The clerical force is all right, unless we are called upon for a great number of investigations all at once—that is, urgent investigations. In general, with one officer we would not need any more clerical force there.

STATEMENT OF COL. J. B. GOWEN, GENERAL STAFF COLLEGE.

Mr. ANTHONY. Colonel, on that item for the General Staff College, you are asking for an increase of \$7,430, which Gen. March stated was largely because of the increase in the cost of fuel.

Col. GOWEN. Yes; \$4,030 is caused by the increase in the price of fuel.

PRINTING AND BINDING.

Mr. ANTHONY. What are the other increases?

Col. GOWEN. One thousand five hundred dollars increase for printing and binding. Up to and including this year the War Department has paid for all our printing and binding, but as we are not

now a bureau of the War Department, they asked us to put in a separate item in the appropriation bill for printing and binding. They allowed us \$2,000 and we put in that amount, but the chief of finance cut it to \$1,500.

Mr. CRAMTON. You are not asking anything because of increased cost of printing and binding?

Col. GOWEN. No; only to cover items formerly paid for by the War Department. We asked for \$2,000 and that was decreased to \$1,500.

Mr. CRAMTON. You are not taking into consideration the great reduction in paper cost?

Col. GOWEN. There has not been much so far. Our work is done by Government printing plant.

Mr. CRAMTON. The cost of printing paper has gone down from 15 cents to 8 cents.

Col. GOWEN. The bulk of this item is not to cover the actual cost of the paper, just the printing and binding.

Mr. CRAMTON. But you have not taken into account anything of that kind?

Col. GOWEN. No, sir; we do not buy the paper.

Mr. Sisson. In other words, you pay the bills and they supposedly charge you the actual cost?

Col. GOWEN. Yes.

Mr. ANTHONY. Why did you say the cost of printing could not be paid as heretofore?

Col. GOWEN. The General Staff College is not any part of the War Department. Our old Army War College was, when the War Plans Division and the Military Intelligence Division were housed in the Army War College.

Mr. ANTHONY. Is that a change of law or change of regulations?

Col. GOWEN. Just simply an order; the War Plans Division has moved uptown and the Military Intelligence Division has moved uptown. We are one of the general service schools of the Army the same as the Fort Leavenworth schools, and the War Department felt that our expenses should come out of our own appropriation and not from the War Department.

Mr. Sisson. I do not know but what it is good accounting to keep the accounts of each distinct.

TYPEWRITERS, OFFICE SUPPLIES, FURNITURE, ETC.

Mr. CRAMTON. How much of this item is for the purchase of typewriters and office supplies and furniture?

Mr. SLEMP. You are not going to give an itemized statement of all that?

Col. GOWEN. Yes; there was an itemized statement in the estimate. It is only \$80 for typewriters and exchange and repair of same. That money is used, practically all of it, in repairs. We have not purchased typewriters for two or three years, and probably will not have to.

Mr. ANTHONY. There is no large furniture expenditure?

Col. GOWEN. No new furniture expenditure. We have ample for years.

NUMBER OF STUDENTS.

Mr. ANTHONY. How many officers will you have in the Staff College?

Col. GOWEN. Eighty-five. We started with 88, but 3 have dropped out. It is contemplated to have 90 to 100 students each year.

Mr. Sisson. In reference to typewriters, you have to get those from the supply division, the supply committee, which must furnish you typewriters now on hand in various departments of the Government, especially the War Department, under the law?

Col. GOWEN. Yes.

Mr. Sisson. That is a question of repairs?

Col. GOWEN. Yes.

Mr. Sisson. In reference to coal—no coal, of course, can be purchased out of this item until July.

Col. GOWEN. No, sir.

Mr. Sisson. Well, the price of coal, of course, may be very materially reduced, and you are basing your increased cost of coal at \$3,000 largely on the present prices?

Col. GOWEN. Yes; we are paying now \$12.34.

Mr. SLEMP. Anthracite coal?

Col. GOWEN. Yes. We are paying \$12.34 for it per ton, and there has been no reduction I notice in the city prices. The other day I noticed it was \$15 to \$16.25 per ton.

Mr. ANTHONY. That \$12.34 is the Government price.

Col. GOWEN. Yes.

Mr. ANTHONY. What is the price of bituminous, the Government price in Washington?

Col. GOWEN. I do not know. We do not use that at the barracks at all, sir.

Mr. SLEMP. Colonel, you are going to put into the record an itemized statement as to the way you are using the \$32,000, are you not?

Col. GOWEN. Yes.

Mr. SLEMP. Are there more people being served at the General Staff College than there were in 1916, 1917, and 1918?

Col. GOWEN. Yes; there are more than three times the number of students than were in the college prior to the war.

Mr. SLEMP. Those places, were they not taken by other people there belonging to the college in some war-assisting capacity?

Col. GOWEN. There were two branches of the General Staff down there—the War Plans and part of the Military Intelligence Division.

Mr. SLEMP. Were their expenditures taken out of this appropriation?

Col. GOWEN. Yes, sir.

Mr. SLEMP. Having taken part of these Government activities away from there, how can you increase the expenses which were \$9,000 in 1920 to \$32,430 in 1922?

Col. GOWEN. Our expenditures have been reduced for clerical hire since 1914 because at that time——

Mr. SLEMP. \$9,000 for 1914 took care of the whole college then. The War College for 10 years back at no time had a larger appropriation than \$10,000, and now you want three times as much.

APPROPRIATIONS DURING WAR—CONSOLIDATION.

Col. GOWEN. Prior to the war and during the war there were three appropriations for the General Staff College instead of two. Two of the three were the appropriations for maintenance and appropriation for miscellaneous expenditures. They amounted in the total to about \$23,500, and last year the two were combined and increased it to \$25,000. It was only an increase of \$1,500.

Mr. Sisson. All carried under this item?

Col. GOWEN. Yes. Last year they were combined, maintenance and miscellaneous expenditures.

Mr. SLEMP. So this increases the expenditure, because you are taking care of the former appropriations?

Col. GOWEN. You will find it in former appropriation bills in two places.

Mr. ANTHONY. Colonel, I did not hear your answer to Mr. Slemp's question as to how you explained the increase from 1920, when the appropriation was \$9,000, up to \$32,000, which you ask for in 1922.

Col. GOWEN. In 1920 there were two appropriations, now covered by this one. One was for maintenance and one for miscellaneous expenditure. One was for \$14,620 and the other \$9,000, or a total of \$23,620.

Mr. ANTHONY. Where was that \$14,620 item carried?

Col. GOWEN. In the Army appropriation bill.

Mr. ANTHONY. Under a different head?

Col. GOWEN. Under maintenance, Army War College, under heading "Pay, etc., of the Army." Under that they paid for coal and light, etc.

Mr. ANTHONY. There is no increase in the item, except for coal; and what else, did you say?

Col. GOWEN. And the printing and binding, and this year we ask for a total increase of \$7,430 for those two items mainly.

Mr. SLEMP. You really have canceled an appropriation usually carried in another department, and there is practically no increase in expense in the college from 1912 to date?

Col. GOWEN. That is true.

Mr. ANTHONY. Many of the items should be carried in the legislative bill, it seems to me, for the pay of this help down there, but it has been carried in the Army appropriation bill for a great many years.

Gen. LORD. This General Staff College was on the Army appropriation bill, and having been separated from the General Staff it becomes a field office and will be properly provided for as such.

TEXTBOOKS, SCIENTIFIC PAPERS, PERIODICALS, ETC.

Col. GOWEN. One increase is for \$1,400 for books.

Mr. ANTHONY. What class of books?

Col. GOWEN. Periodicals and so on; books on military and economic subjects that are used in the General Staff College.

Mr. ANTHONY. There are a great many publications growing out on the conduct of the war?

Col. GOWEN. There has been a great increase in publications of that character, and we find that the amount estimated for last year was not sufficient.

Mr. SLEMP. You are not going to purchase and plant any trees down there?

Col. GOWEN. No; we cut that out. The Chief of Finance asked that the \$800 for that be cut out.

Mr. ANTHONY. Is there anything else you care to give us?

Col. GOWEN. That is all.

Mr. ANTHONY. We are much obliged to you. We will hear Gen. Nolan now.

Gen. LORD. The Adjutant General is here. He said he would take but two or three minutes.

Gen. HARRIS. I have a very small item of \$11,000, and if I could present it now it would save me from coming again.

Mr. ANTHONY. All right, Gen. Harris.

OFFICE OF CHIEF OF STAFF.

MILITARY INTELLIGENCE DIVISION.

STATEMENT OF GEN. D. E. NOLAN.

GENERAL STATEMENT.

Mr. ANTHONY. Under the head of military intelligence, page 5 General, can you tell us why you need this increase of \$98,000?

Gen. NOLAN. Yes, sir. Before proceeding to a detailed discussion of that estimate I would like to make a brief general statement that might answer some of the questions of the committee regarding the relation of intelligence to the preparation of war plans regarding the work we have now in progress and the objects we are endeavoring to accomplish, in so far as such matters can be discussed in open session of the committee.

As the committee knows, a good deal of the work is confidential. For that reason I wish that it could find time and would visit the Intelligence Division and see the work actually in progress and talk to the officers and clerks who are engaged in this work, as you could form a much better idea of it than my verbal description of the work.

Mr. ANTHONY. I tried to visit the Intelligence Department a year or two ago, but it was surrounded by so much secrecy that I could not get in.

Gen. NOLAN. That is all changed now. You are welcome at any time.

Mr. Sisson. Where is it?

Gen. NOLAN. At Seventh and B Streets, in one of the temporary buildings. I would like to have the committee come down at any time, because I feel that in asking for an appropriation a good deal of which is to be spent for confidential purposes, the committee appropriating the money year after year ought to know the work for which it is being expended, and I think you should see for yourselves the importance of that work by talking to the people engaged on it. I would say in connection with your statement, Mr. Chairman, that

I took over the direction of the work of the division in September, relieving Gen. Churchill, and what I am going to say as to the importance of all this is more in connection with my experience as chief of the Intelligence Service in France than my experience with the organization here, which I have just taken over.

At previous hearings before the Military Committees, the importance of the Intelligence Service in war has been, I think, pretty completely covered and the objects accomplished pretty clearly stated. I can touch again on some of them in an executive session under the code and cipher section.

What I want to say now refers to intelligence work in peace, the preparation work that must go on in any intelligence service during peace. The Intelligence Service in peace has to obtain information of foreign armies, and resources of foreign countries and to evaluate all of that information so as to be able to tell the Chief of Staff and the Secretary of War at any time what the military preparation of any foreign power is. When I refer to foreign power here I do not mean that we consider those foreign powers necessarily as enemies. It is just as important to be able to tell what a power can do in the conduct of war as a possible ally, so that we could tell whether it is an asset or a liability in case of war, and the effect on our plans of a neutral attitude by that power in case of war.

I think it is obvious that the Chief of Staff and the Secretary of War when war is imminent, and the war plan is presented to the President, ought to be able to explain in detail the reasons why the friendship or the alliance with certain powers at the beginning or during the war would aid our plans, or how if those powers, by alliance with the enemy would upset our calculations, and what effect a neutral attitude would be. That was all very clearly shown in the World War that has recently ended.

The information that I want to stress particularly in these hearings is what Mr. Cramton referred to as the political information, especially the economic information.

Now, all intelligence services previous to the war—and this includes our own, which was negligible; as the Chief of Staff just stated, it consisted on the outbreak of the war of two officers and two clerks—all these foreign services had failed to analyze and appreciate the great importance of economic and political factors. We all had minutely studied the question of armament, equipment of all kinds, the active forces and the reserve forces—everything connected with the Army itself and the operations—but the part played by resources, the economic and political relations of the powers with other powers was not sufficiently considered nor properly estimated. For that reason we are laying particular stress on the economic resources of foreign powers, their political relations with neighboring and other powers. We are keeping for the purpose of informing the Chief of Staff and the Secretary, a monograph on each country in four sections; one section concerns itself with the details of military and naval forces, their equipment and everything in relation to those forces. The information regarding the naval forces we obtain from Naval Intelligence. They do that work entirely. The economic section concerns itself with the total basic resources of these powers—

Mr. ANTHONY. Right there, General, how far does the Naval Intelligence parallel your activities? Do they confine themselves solely

to the naval questions or do they go into the political and economic questions?

Gen. NOLAN. They confine themselves practically entirely to the naval forces, and we accept, without any work on our part, their conclusions in regard to that. We accept that without any further study as to the power of a foreign navy, and they accept our economic and political estimates and the military estimate as related to the Army itself, which is our work, and so there is no duplication.

Another section of the monograph relates to the political relations of a foreign power with its neighbors and with others, taking into consideration the questions of their defensive and offensive alliances, "ententes," etc.

Mr. CRAMTON. May I ask a question?

Gen. NOLAN. Yes, sir.

Mr. CRAMTON. Why is it not just as desirable for a naval attaché to make reports on economic conditions as it is for a military attaché?

Gen. NOLAN. It is the special concern of the General Staff of the Army, being in charge of the preparation of the plans for land operations, which are much more affected by the economic resources of the foreign power, to estimate the value of that than it is for the Navy. They might do it, if we were not running an intelligence service of our own, because that ought to be done for the Government, but by mutual consent we do that and they do not touch it.

Mr. CRAMTON. In the course of your statement I will be glad if you will indicate why it is necessary for the military attachés to handle questions as to the political conditions of the country and the economic conditions rather than for the General Staff to secure their information through the regular diplomatic channels, the economic or commercial knowledge through commercial channels that we already have established.

Gen. NOLAN. I will cover that in the course of this statement, and I would like to have any questions asked on that in order to clear it up.

Mr. ANTHONY. How large an intelligence establishment has the Navy maintained? What is their appropriation for this purpose do you know?

Gen. NOLAN. I am not sure of that, but my recollection is about \$230,000 for the last year. They have a smaller service—13 naval attachés, I believe, as against our 54 observers and attachés.

Mr. ANTHONY. Would it be practical to have this work done by one bureau of the Government?

Gen. NOLAN. No; we would not be competent to do the naval attaché work; to pass on those technical questions regarding the value of ships, and so on. The Army would not be able to do that any more than the Navy would be able to pass on the value of foreign divisions because their line of study does not involve that. We would make a sorry mess of reporting on technical naval matters.

Mr. ANTHONY. It would seem desirable to have a consolidation.

Gen. NOLAN. These attachés are expected to work close together in foreign capitals and have, if possible, their offices together in the same building. Whether they are always able to do that I do not know.

Mr. CRAMTON. If I might delay you a minute so that you see what I am getting at. The members of this committee are being bombarded

by business men for an increase in the appropriation for the work of the Bureau of Foreign and Domestic Commerce through commercial attachés. Nothing impressed me more abroad than the duplication of effort, with a service to the American business men that is not in proportion to the money expended. An American, for instance, who goes into Prague finds there in that capital the minister housed in quarters larger than Thomas Nelson Page had at Rome during the war, and yet great work was done by Thomas Nelson Page, as well as by his military attaché, Col. Buckey. The present minister at Prague had quarters larger than Mr. Page had in Rome in the war, but they are not sufficient to permit the military attachés to be housed with him, so that an American to do business with our representatives in Prague, in order to secure assistance, would find the military attaché over in a distant part of the city, and the commercial representative situated over here in another part, in other offices, and the consul in other offices, with perhaps some special representative of the Treasury Department and the Agriculture Department in some other place in the city, with the result that he does not get service, although we are spending a great deal of money.

I am a great believer in the importance of the work of the commercial attaché, consulates, etc., the work to be done by them, but they are overlapping, and I feel also that this newly developed military intelligence is trying to cover the same ground, and it seems to me that in some way there ought to be some consolidation of the activities, of the operations of our representatives abroad. So my questions to you are not from any unfriendliness to your service.

Gen. NOLAN. I agree with you that where these offices are separated, for instance, where the military attaché is separated from the offices of the embassy, where the business is done on economic work, it means inefficiency in his office, because of difficulty of contact with the people with whom he is dealing. So it would aid greatly, from my standpoint, the efficiency of our intelligence service abroad—that is the military attachés, if they could have their offices in the same building with the ambassadors and the first and second secretaries.

Mr. Sisson. That has been the policy of the State Department to cooperate with the military department in order to do that same thing.

Gen. NOLAN. Yes, sir. We strive to do that. The situation in Prague I do not know. Col. McCabe is our military attaché there.

A consideration of the economic and political factors is essential not merely to the evaluation of the fighting power of a nation prior to the outbreak of war; these factors have a direct bearing on the course of operations themselves. The success of armies in the field may be seriously affected by the seizure of the economic resources upon which their supply as well as that of the country at large depends; by dissensions arising from divergence in the political aims of allied nations or members of a confederation; or by weakening of nationalist sentiment of the people at home.

A consideration of the economic and political elements of the strength of a foreign military power is thus essential to a correct evaluation of that power either as an ally, an enemy, or a neutral as well as to a correct decision as to a plan of operations and the selection of military objectives.

In order to be prepared to advise the Chief of Staff and the Secretary of War and the other divisions of the General Staff concerned

as to the economic and political factors above described as well as with reference to the purely military factor, we are now keeping in the Intelligence Division a monograph on each country in four sections; one section deals with all questions involving the Army and the Navy; another section deals with the economic situation; a third section deals with the political relations of the country, internal and external; and a fourth section deals with the basic characteristics of the people and their particular reactions on important foreign and domestic questions.

The Combat Section of the Monograph, dealing with the Army and Navy, requires considerable trained, military personnel in its preparation. It is, however, relatively not difficult to prepare and keep up to date.

The economic section of the monograph deals with the total basic supply of the principal minerals, foodstuffs, and other supplies needed in the conduct of war. It establishes the deficiencies existing in supply and shows how these deficiencies are supplied from neighboring or other foreign states, and how this supply might be affected in case of war. It also deals with the military aspect of transportation, communication, and financial systems and with data relative to man power, and the mobilization of industries.

The political section of the monograph is concerned largely with the political relations with neighboring powers of the power under consideration—its treaties of alliance, of offense and defense, or the less formal understandings—its "Ententes." It deals with the underlying political causes which may lead to war as well as those which may affect the conduct of war itself.

The impression sometimes obtains that a system of intelligence can, by considering all of the factors in the case, decide what any country will do in a given case. Such a result can not be expected for the reason that the people of that country do not know themselves what they will do. But if we know their state of military preparation, their international affiliations, their economic resources, their financial condition, the articles of food and war material in which they are deficient, and the countries from which they can draw this material we can determine within certain limits what they can do in war.

In connection with the problem of obtaining the data for these various monographs, it should be pointed out that much of it is acquired from publications, public and private, which are open to everybody and which are in no sense secret. Much of it, of necessity, is contained in public documents, particularly in countries that have constitutional governments. I might also point out in this connection that the most valuable information published in this country for military intelligence divisions of foreign general staffs are not reports of our War and Navy Departments but those of the various other governmental departments dealing with our economic situation: the development of our resources; the location and amounts of our mineral and oil deposits, etc. It will, of course, be understood that the proper preparation of these data from the military standpoint requires patient research, continuous study by trained men who understand the importance of the work on which they are engaged, and a final interpretation, after the facts have been established by General Staff officers who, because of their long service

and special training, understand the significance of the mineral and agricultural resources, the systems of transportation by railroad, river, and canal, etc., and their influence on the strategy of campaigns.

The international situation in all its relations—political, economic, and military—is so complex that an attempt to advise the President as to the correct method of procedure, based on a hastily prepared study made upon the imminence of war and not evolved as the result of the analytical research of these questions over a long period of years, could lead only to wrong conclusions and possible disaster in the conduct of the war. In other words, the information required to serve as a basis for preparation for modern war cannot be gathered and prepared after war is imminent, and still less when war is an actual fact.

In the preparation of these monographs we are in close relation with the State Department for our political data and such economic data as is furnished by our consuls abroad, and we also maintain relations with the other departments of the Government concerned with international questions. I would like to make it a matter of record that the cooperation in general is all that could be desired, and that no duplication of work is involved. We try by our contact with these departments, which is being improved, to secure the data required for intelligence estimates from the various departments of our Government whose duty it is to be informed on the special questions we wish to consider—the State Department on foreign political questions, the Department of Commerce on commercial questions, communications, and foreign trade relations. It is the function of Military Intelligence to interpret the military significance of the information furnished by other departments and to evaluate its importance as a factor affecting war plans and operations.

In this statement, I want to guard against giving the impression that when the intelligence work has been done, nothing remains to be done: the most difficult part of the problem, of course, remains to be solved—how to create, mobilize, transport, supply, and train our forces, and, finally, in battle destroy by our own armies the enemy's armies and military resources. These are staff functions largely pertaining to the other divisions of the General Staff.

What I have said heretofore touches on the responsibility of the Intelligence Division of the General Staff in regard to foreign countries and foreign armies. In the distribution of duties, under our revised national defense act allotted to the various divisions of the General Staff, the question of the military topographical policy in the United States has been assigned to the Intelligence Division, and this division is also charged with the collection, reproduction, and study of all maps of foreign countries.

Another obligation of the division in connection with our own Military Establishment is the protection of our military forces against subversive propaganda originating either in the United States or abroad.

The monograph in course of preparation to which I have already referred, deal, among other things, with the radical movements both at home and abroad. The observation of such movements will, of course, continue to be an important duty of the division until the

existing situation in Russia becomes stabilized. It is needless to say that as long as the present situation continues it will be difficult for the Intelligence Division of the General Staff to devote its whole time and attention to its peace-time duties.

I would like to insert here as a part of my hearing the mimeographed statement furnished each member of the committee showing how it is proposed to expend the amount of the estimate if the money is appropriated.

GROWTH OF PERSONNEL.

In comparing the estimates for the appropriations for the fiscal year ending 1922 it will be well to consider the personnel engaged on Military Intelligence at various times.

In 1916, the Intelligence personnel was limited to two officers and two clerks. The estimates for contingencies for the fiscal year 1917 was \$11,000, and for the expenses of Military Observers \$15,000. At that time there was 16 military attachés.

In November, 1918, the Intelligence personnel consisted of 79 officers, a civilian personnel of 1,156, 30 military attachés with 7 assistants. The total amount expended for contingent expenses for fiscal year 1918 was \$993,137.47, out of an appropriation of \$1,000,000. In November, 1918, the expenditure of funds for contingencies was \$168,937.03, or an average annual expenditure of \$2,027,244.36 if the organization had continued as constituted in that month.

It is proposed to reduce the personnel so that for the fiscal year ending June 30, 1922, it will be as follows:

Officers.....	.....
Civilian employees.....	.....
Military attachés and assistants.....	.....

It is proposed to reduce the contingent expenses to \$398,000.
(The statement follows:)

ESTIMATE OF APPROPRIATION REQUIRED FOR THE SERVICE OF THE FISCAL YEAR ENDING JUNE 30, 1922.

MILITARY INTELLIGENCE DIVISION, CONTINGENCIES.

For contingent expenses of the Military Intelligence Division, General Staff, Corps, including the purchase of professional books of reference; subscription to newspapers and periodicals; drafting and messenger service; military attachés at the United States embassies and legations abroad; the cost of special instruction at home and abroad, and in maintenance of students and attachés and for such other purposes as the Secretary of War may deem proper to be expended under the direction of the Secretary of War, \$398,000; *Provided*, That section 3648, Revised Statutes, shall not apply to subscription for foreign professional newspapers and periodicals to be paid for from this appropriation.

MILITARY OBSERVERS ABROAD.

For the actual and necessary expenses of officers of the Army on duty abroad for the purpose of observing operations of armies of foreign States at war to be paid upon certificates of the Secretary of War that the expenditures were necessary for obtaining military information, \$25,000.

Objects of expenditures—Estimated, 1922.

Contingencies, Military Intelligence Division:	
Purchase of books, dictionaries, encyclopedias, professional books of reference.....	\$3,500. 00
Subscriptions to newspapers and periodicals, domestic and foreign	1,010. 00
Purchase of drafting supplies.....	2,745. 00
Extraordinary expenses of military attachés and their assistants in the collection of military information.....	82,000. 00
Purchase of general office supplies, postage and registry stamps, and photographic supplies.....	6,400. 00
Printing and binding of instruction books, purchase and reproduction of maps, etc., including the cost of plates and cuts....	13,040. 00
Necessary expenses incurred in interviewing individuals called to verify and amplify military information on file.....	2,815. 00
Cost of tuition, textbooks, and charts necessary in instruction of officers studying Chinese and Japanese.....	8,000. 00
For the necessary expenses incurred in the maintenance of intelligence work in the recently organized corps areas within the limits of the United States, and at the military departments in our outlying possessions.....	48,000. 00
Payment of clerks and stenographers, draftsmen, research clerks, photographers, and translators and messengers.....	170,490. 00
For necessary expenses connected with code and cipher work in the United States Army.....	60,000. 00
Total	398,000. 00
Military observers abroad:	
Expenses of military observers abroad.....	25,000. 00

POSITIVE BRANCH.

	Transla- tors.	Clerks.	Steno- graphers and typists.	Re- search clerks.	Messen- gers.	Total.
.....	4					\$7,200
.....	5					8,000
.....			2	1		4,200
.....			2			2,600
.....		9	15	9		39,600
.....			1			1,100
.....					1	480
Total.....	9	9	20	10	1	63,180

GEOGRAPHIC BRANCH.

	Stenog- raphers and typists.	Research clerks.	Clerks.	Photo- stat operator.	Drafts- men.	Total.
.....		1			1	\$3,200
.....		1			1	2,800
.....	12		2			16,800
.....				1		900
Total.....	12	2	2	1	2	23,700

Objects of expenditures—Estimated, 1922—Continued.

NEGATIVE BRANCH.

	Stenog- raphers and typists.	Clerks.	Messenger.	Total
\$1,800.....		1		\$1,800
\$1,600.....		1		1,600
\$1,400.....		2		2,800
\$1,200.....	12	8		24,000
\$480.....			1	480
Total.....	12	12	1	30,000

ADMINISTRATIVE BRANCH.

	Photog- rapher.	Stenog- raphers and typ- ists.	Clerks.	Laborers.	Messen- gers.	Total
\$2,000.....			1			\$2,000
\$1,600.....			1			1,600
\$1,500.....			1			1,500
\$1,400.....		9				12,600
\$1,300.....		1				1,300
\$1,200.....	1	18	8			32,400
\$1,100.....		2				2,200
\$900.....				2		1,800
\$720.....				1	1	1,440
\$480.....					4	1,920
Total.....	1	30	11	3	5	58,500

PERSONNEL.

Mr. ANTHONY. Your general statement is very interesting, but now, to get down to the analysis of your report, how many clerks are you asking for in the office?

Gen. NOLAN. During the past year there had been authorized by the Secretary of War a total for this office of 150 clerks. The details of what we have now I will put in the record.

Mr. ANTHONY. How many commissioned officers have you detailed and now on duty?

Gen. NOLAN. Including those who are leaving on the 31st of December, 3 reserve officers, I have 48.

Mr. ANTHONY. They are paid out of pay of the Army?

Gen. NOLAN. They are paid for under pay of the Army. It does not come out of this fund.

Mr. ANTHONY. So that this \$398,000 you ask for is in addition to the pay of those officers?

Gen. NOLAN. Exactly. The pay of the officers is an entirely separate thing. Now, for clerks under that item we are asking for \$170,490.

Mr. ANTHONY. For the pay of 150 clerks?

Gen. NOLAN. For the pay of 144 clerks for next fiscal year. That is about \$14,000 less than we are paying for the present year. The difference will come by reduction of 6 clerks that we think we can dispense with, leaving 144 clerks and messengers instead of 150 the coming year.

PURCHASE OF LAW BOOKS, ETC.

Mr. ANTHONY. Where does the rest of that money go?

Gen. NOLAN. The items are given in the statement furnished each member of the committee. The first item is for the purchase of books, dictionaries, encyclopedias, professional books of reference, \$3,500. Those are books which are furnished our own division and for the military attachés.

SUBSCRIPTION TO NEWSPAPERS AND PERIODICALS.

The second item is for the subscription to newspapers and periodicals, domestic and foreign, \$1,010, the same as we are expending this year.

DRAFTING SUPPLIES.

The third item is for the purchase of drafting supplies, \$2,745.

EXTRAORDINARY EXPENSES OF THE MILITARY ATTACHÉS.

The next item of this appropriation is \$82,000 for extraordinary expenses of military attachés and their assistants in the collection of military information. That is an allowance additional to their pay, for extraordinary expenses, largely to return social obligations and entertainments given by foreign officers and foreign officials.

Mr. ANTHONY. How is that regulated, by specific allowance which you make to the attaché?

Gen. NOLAN. Special allowance made to the attaché. Every attaché now has \$100 per month. Then in certain of the more important posts where the expenses of entertaining are greater, the factor of living is taken into consideration, so as to give a maximum of \$200 to the military attaché and \$150 to his assistant.

MILITARY ATTACHÉS AND OBSERVERS.

Mr. ANTHONY. How many military attachés have you now operating under your bureau?

Gen. NOLAN. Fifty-eight attachés and observers and their assistants and the policy for this coming year is to have 43 military attachés and their assistants. The military observers where operations are now in progress are additional. The total is now 58.

Mr. ANTHONY. They are in addition to what you have here?

Gen. NOLAN. Yes.

Mr. ANTHONY. That is how many?

Gen. NOLAN. Forty-eight. What I have recommended after consultation with the officers here, after consultation with Gen. Churchill and the officers on duty here, and with my new General Staff officers, is a total of 45 officers, to be the permanent personnel in Washington to run the service as it is now organized, 14 General Staff, and the others line officers. This recommendation has not, however, yet been approved by the War Department.

Mr. ANTHONY. This makes as big an establishment as the General Staff.

Gen. NOLAN. Yes, sir; as the General Staff before the war at one time it was 45 and that number was cut to 36. That is one reason why we had only two officers and two clerks in the military intelligence.

Mr. ANTHONY. What is the reason for so many officers in the division at Washington?

Gen. NOLAN. They go over all this information that comes in, sifting and evaluating it. The line officers, then men who are not General Staff officers, are largely specialists on some particular thing. In the economic section, for instance, we have two officers and four research clerks. They handle all the economic reports that come in from the military attachés and the liaison officers, from the foreign trade people with whom we have contracts, which they classify, evaluate, and file.

Mr. ANTHONY. There is no limit to the number of officers that could be detailed to your department?

Gen. NOLAN. No; but the number recommended above is well below the figures of foreign intelligence services as to the number of officers.

Mr. Sisson. These military attachés when abroad are under the control of the Secretary of State's representatives?

Gen. NOLAN. They report to the minister; but we have direct communication with them, and, as Gen. March has just pointed out—

Mr. Sisson. They would not do anything in any foreign country except with the permission of the department?

Gen. NOLAN. No, sir; with the permission of the minister. The attaché absolutely carries out his instructions.

Mr. Sisson. There may be a little consulate somewhere and somebody in a political way must have control of the military activity or you will get into trouble.

Gen. NOLAN. That is true.

Mr. Sisson. It is not at all the disposition of the War Department in any way to pursue activities in any of the capitals of the country except with permission of the State Department.

Gen. NOLAN. No, sir.

Mr. SLEMP. There is no increase in the number of military attachés?

Gen. NOLAN. We are going to cut them down in this estimate on the basis of a total of 43 attachés and assistants.

Mr. SLEMP. Let us take, for example, 1912 or 1916, how many military attachés were there? Was there not always a military attaché at every legation in the world?

Gen. NOLAN. It was not as broad a system as we have now. I can put in the record what we had in 1916.

NOTE. - We had 16 military attachés.

Mr. SLEMP. There would not be any special reason for having military attaché in Peru, would there, or any special information about that?

Gen. NOLAN. The officer in Peru, Lieut. Col. Case, covers two countries, Peru and Bolivia. Ecuador and Colombia are also covered by one officer.

Mr. SLEMP. For all of the attachés in 1912, 1913, and 1914 this appropriation was \$10,000 or \$11,000. Those military attachés got the information, and where did they send it?

Gen. NOLAN. To the War College, Division of the General Staff.

Mr. SLEMP. How was it assimilated there?

Gen. NOLAN. It was not, due to the limited personnel on the General Staff Office. That is just the point. I am glad you asked the question.

Mr. SLEMP. I see that every department of the Government wants to continue, particularly a department that was introduced during the war.

Gen. NOLAN. I can see that tendency, too.

Mr. SLEMP. And it applies to the War Department also.

Gen. NOLAN. Yes.

Mr. SLEMP. And here is a striking instance of it, a growth from 1912, through 1913, 1914, and even 1916 and 1917, an \$11,000 appropriation, grown up here to what appears to be a normal annual appropriation of \$300,000, thirty times as great, and you already have information about Germany, France, Austria, and Hungary down there on file.

Gen. NOLAN. No; we have in a way the prewar status of those countries.

Mr. SLEMP. You know the size of the new armies of the various countries?

Gen. NOLAN. Yes.

Mr. SLEMP. You know the size of the army of France? That does not require expert knowledge. That is 794,000 men, according to their statement.

Gen. NOLAN. Correct; and the equipment, etc., we have all that.

Mr. SLEMP. Why should there be a large force to assimilate additional information, assembling this information, recording it, filing it in each case and forming conclusions from it, dictating reports to stenographers, etc.?

Gen. NOLAN. There is an enormous mass of information coming in because of things that are new. Two things that are new that we are doing that was not done before is the economic and political estimates in regard to the different countries.

Mr. CRAMTON. Why could not you get it from the Bureau of Foreign and Domestic Commerce?

Gen. NOLAN. They have the same set of facts that we have and we get some of it from them, and we put a military interpretation on it. What can that country do in case of war? She is deficient in certain minerals. Take the case of Italy. How can Italy conduct a war unless she has control of the sea or is allied with Great Britain in order to get her coal?

Mr. SLEMP. You have worked on that the last year, and the present fiscal year, and have a report on Italy.

Gen. NOLAN. I would say in connection with that assumption that these monographs are not complete. We are just beginning the work. This was not done previous to 1917.

Mr. SLEMP. Italy produced no coal, but has to get her coal from the United States, Germany, or Great Britain. Germany can not furnish any coal. England does not give much coal for export.

Therefore, the United States is the logical place to get it. That does not require an exhaustive piece of work to get that information.

Gen. NOLAN. No. One thing that was not well understood even by the German general staff was the fact that Italy could not be allied with Germany when Great Britain was at war with Germany, because she could not get the coal. Nevertheless, the German Government formed an alliance with a power which as soon as England came in would have to get out of the war.

Mr. SLEMP. My point is that as soon as you have drawn your conclusion, you could put that in your file, and that is the conclusion about Italy. I would expect that to last some few years.

Gen. NOLAN. Yes; that is basic, regarding coal.

Mr. SLEMP. You gentlemen want to keep up with the changing, fluxing conditions?

Gen. NOLAN. That is a criticism justified, and probably what you would run across now, that too much attention is being paid to current transient situations, economic and political, by the intelligence as compared to the basic things. We do not care how much coal Italy has to-day, or the present state of her industries, but we do want to know the basic amount she must have and must continue to have if she can properly mobilize her industries for war.

FOR NECESSARY EXPENSES OF MAINTENANCE OF INTELLIGENCE WORK IN
RECENTLY ORGANIZED CORPS AREAS, ETC.

Mr. ANTHONY. I want to take up another item, "For the necessary expenses incurred in the maintenance of intelligence work in the recently organized corps areas within the limits of the United States and at the military departments in our outlying possessions." Does that mean that you are building up miniature military intelligence divisions in each corps area in this country?

Gen. NOLAN. Only in Panama, Hawaii, and the Philippines, have they a miniature section. There is one on the southern border handling border questions.

Mr. ANTHONY. Why can't these activities be taken care of by your head office. Why can not we save that \$48,000?

Gen. NOLAN. The corps commanders in these corps areas are required to do this. They keep track, or try to keep track, of the racial and other activities. I will give an illustration. In the case of operations of troops going into West Virginia, Gen. Reed, the commander of the Fifth corps area, must, through his intelligence officer familiarize himself with the local conditions from his own data, because he is responsible for what occurs there.

Mr. Sisson. Do you mean to tell me that he is responsible? He is not responsible.

Gen. NOLAN. When he comes in on the request of the governor and he puts troops there, he is responsible.

Mr. Sisson. He is not responsible for them. The governor of the State invites him to come in there. He is under the direction of the governor of the State.

Gen. NOLAN. Yes; unless martial law is declared.

Mr. Sisson. We agree on that.

Gen. NOLAN. The point I make about his staff being informed is in answer to Mr. Anthony's question. We could not send out to find out what the situation was in West Virginia. It is not our business. We have no staff there.

Mr. ANTHONY. Why could you not detail a man from your office to do that work instead of relying on him to take a man out of his force at additional expense?

Gen. NOLAN. He has got on his staff what we call the general staff officer for intelligence, one of his five general staff officers. In this case, Col. Thompson, chief of the intelligence of the second American Army in France, is on Gen. Reed's staff. That is Col. Thompson's job on Gen. Reed's staff, to keep him informed as to the general situation in the corps area.

Mr. SLEMP. He does not get any of the \$48,000?

Gen. NOLAN. He gets his share.

Mr. SLEMP. His salary would be paid otherwise?

Gen. NOLAN. Yes; about \$2,000 was the allowance for that corps area for this year.

Mr. ANTHONY. Estimate the expenses of that officer going into the field and gathering this local information.

Gen. NOLAN. For instance he will buy any local maps that are of use there. That expenditure would come out of this. Unless the Geological Survey's maps can be furnished free, they have to go out and buy them. That is a sample of the items.

Mr. SLEMP. I want to see those items.

Gen. NOLAN. What we allowed him the past year I will have to look up and enter it in the record. We allow Panama, the Philippine Islands, and Hawaii about \$6,000.

Allotments to corps areas for the fiscal year 1921.

Corps area and location.	Amount per quarter.	Amount per year.	Corps area and location.	Amount per quarter.	Amount per year.
First, Boston, Mass.....	\$650	\$2,600	Ninth, Presidio of San Francisco, Calif.....	\$1,250	\$5,000
Second, Governors Island, N. Y.....	1,170	4,680	Panama Department.....	300	1,200
Third, Fort McHenry, Md....	780	3,120	Hawaiian Department.....	300	1,200
Fourth, Fort McPherson, Ga....	300	1,200	Philippine Department.....	950	3,800
Fifth, Fort Benjamin Harrison, Ind.....	520	2,080	Total.....	10,250	.....
Sixth, Fort Sheridan, Ill.....	1,170	4,680	Total for the year .....	.....	41,000
Seventh, Fort Crook, Nebr....	260	1,040			
Eighth, Fort Sam Houston, Tex.....	2,600	10,400			

Bi-monthly pay roll, civilian employees, for Eighth Corps area (Mexican border) for months of September, October, and November, 1920, mostly pay of clerks.

Sept. 15, 1920:	
Fort Sam Houston, Tex., nine.....	\$551. 68
Laredo, Tex., one.....	50. 00
El Paso, Tex., one.....	50. 00
Nogales, Ariz., one.....	75. 00
Total.....	726. 68
Miscellaneous office expenses, all district offices included.....	150. 00
Total.....	876. 68

Sept. 30, 1920:

Fort Sam Houston, Tex., nine	\$566.34
Miscellaneous office expenses, all district offices included	55.00
Total	<u>621.34</u>

Oct. 15, 1920:

Fort Sam Houston, Tex., eight	412.00
Miscellaneous office expenses, all district offices included	50.00
Total	<u>462.80</u>

Oct. 31, 1920:

Fort Sam Houston, Tex., six	373.63
Miscellaneous office expenses, all district offices included	50.00
Total	<u>423.63</u>

Nor. 15, 1920:

Fort Sam Houston, Tex., six	373.64
Miscellaneous office expenses, all district offices included	50.00
Total	<u>423.64</u>

COOPERATION WITH DEPARTMENT OF JUSTICE.

Mr. SLEMP. You do not go into the red activity in the United States, do you?

Gen. NOLAN. We do not follow it ourselves, but we are in close association with the Department of Justice, and we get out a summary each week. The relation of red activity in all countries of the world we cover in these monographs, and the relation of this activity like the Bolsheviki question in Russia, to our own radical activity in this country. We follow both as a movement and keep track of individual radicals that are considered dangerous. We are in very close touch with the Department of Justice on that, but we have no organization for the work.

Mr. Sisson. On this \$48,000 that the chairman was just asking about, it seems to me that that is for the purpose of furnishing to these various headquarters in these corps divisions subscriptions to newspapers, periodicals, and the purchase of drafting and photographic supplies, and so on?

Gen. NOLAN. There is very little of that; mostly clerical hire.

Mr. Sisson. They would be able to buy all the reading matter at the various headquarters.

Gen. NOLAN. To an extent they would run a miniature intelligence section, and they would expend the funds as we do to purchase papers in Hawaii, Panama, and the Philippine Islands, and they would pay for them out of that fund.

Mr. Sisson. To go back a minute, to indicate where this fund might be abused, going back a minute to the \$84,000, for extraordinary expenses of military intelligence, you give them \$100 a month, and they spend it as they see fit and proper?

Gen. NOLAN. No. They account for it. It is all audited here.

Mr. Sisson. He has a nice dinner this month and the next month. He has another dinner, and the next month he would have another dinner. He would have \$100 worth under the guise of getting military intelligence. I am a foreign representative, and I come around, and I at

known to you, and I spend \$100 on a dinner, and I report back that I had a dinner, and that I found out for you that he is a pretty decent fellow. Now, you get into all that sort of stuff with this intelligence bureau, when up until 1917 you got along with \$11,000?

Gen. NOLAN. Yes, sir; until 1917 we got along with \$11,000.

Mr. Sisson. Now, we are trying to get back to these necessities and you want \$398,000, showing how it is that you can not shake off the effects of the war. You have got to take a meat ax and chop it off. There is no single department of this Government—I have been here 12 years and we have been trying to find some useless activity, and we have not been able to find any. Every activity that was organized during the war is essential to the peace, the harmony, and the future of the Republic. Not only that, but all the organizations they had during the war for various and sundry things they want to hang onto, and unless you take a meat ax and chop them off, you will not get rid of them.

Gen. NOLAN. Before the war our policy about attachés was, and it is somewhat still the case, that only a wealthy man could afford to take those positions. We proposed in this—and I think you will approve of the idea—that we would take men of ability rather than to make it a question of wealth. Incidentally, if they have wealth as well as ability, it is so much the better to help them out in returning obligations which are incurred entirely because of their position as representatives of the Government there.

Mr. Sisson. I thought we would finally get down to that.

Gen. NOLAN. That is very plain.

Mr. SLEMP. That does not appear, though, in these estimates here.

Gen. NOLAN. That \$82,000 for extraordinary expenses.

Mr. SLEMP. That is really counted as an addition to his salary, you may say?

Gen. NOLAN. Yes, sir; except it can be used only for the purpose indicated.

Mr. CRAMTON. To what extent do you say you expect to reduce these forces abroad?

Gen. NOLAN. From 59 to 43.

Mr. CRAMTON. It is not 59, with 6 additional?

Gen. NOLAN. That is right. The four air observers are not included in that, neither the medical observer in Berlin nor the officer in charge of visitors' bureau, Paris.

Mr. CRAMTON. In a country like Belgium, where you have two, that would be reduced to one?

Gen. NOLAN. One.

Mr. CRAMTON. Czechoslovakia would be cut down to one?

Gen. NOLAN. Yes.

Mr. CRAMTON. What would be your organization in Paris?

Gen. NOLAN. Paris would have to be a little larger on account of the closing of the A. E. F., but I think we could get along with two assistants and one chief.

Mr. CRAMTON. Where now you have about eight?

Gen. NOLAN. Yes, sir; six. London we would cut down to two.

Mr. CRAMTON. There is a large clerical force there?

Gen. NOLAN. There is a fairly large one there now. We would reduce in proportion.

GENERAL SERVICE SCHOOLS.

FORT LEAVENWORTH, KANS.

STATEMENT OF LIEUT. COL. WAIT C. JOHNSON.

ESTIMATED AMOUNT OF EXPENDITURES.

Mr. ANTHONY. Colonel, you might give us the items in your estimate, for insertion in the record, which make up this appropriation of \$47,300 which you are asking for.

Col. JOHNSON. I will do that, sir.

Pay of 2 translators at \$150 per month each-----	\$3,000
Purchase of text and reference books, scientific and professional papers, modern instruments and material for theoretical and practical instruction, supplies for blueprinting, photographic, lithographic, and general reproduction purpose, equipment for printing office and bindery, office furniture, stationery, and miscellaneous supplies, and hire of temporary, technical, and special services-----	39,300
Purchase of library books and periodicals-----	5,000
Transportation of persons-----	400
Total-----	47,300

Mr. ANTHONY. How much did you have last year?

Col. JOHNSON. The appropriation last year was \$20,130.

NUMBER OF STUDENTS.

Mr. ANTHONY. What is the present attendance?

Col. JOHNSON. There are 95 in the line class and 55 in the staff class.

Mr. ANTHONY. This year?

Col. JOHNSON. Yes, sir.

Mr. ANTHONY. Are there not more than that now?

Col. JOHNSON. No, sir; not now. That is the present status. I think, in fact, right now there are one or two less in the line class.

Mr. ANTHONY. How many do you propose to have there next year?

Col. JOHNSON. The approved policy of the Secretary of War in regard to that for next year includes 200 in the line class and 100 in the staff class, and in the following year 300 in the line class and 150 in the staff class.

Mr. ANTHONY. So that approximately you are planning to train 600 officers?

Col. JOHNSON. About 450 annually; there would be nearly 600 there, including the instructors and the post administrative staff.

Mr. ANTHONY. That vastly increases the size and the work of the institution?

Col. JOHNSON. Over 400 per cent.

EDUCATIONAL SYSTEM.

Mr. ANTHONY. As I understand it, the general service schools take the men who graduate from the basic schools of the different branches of the service?

Col. JOHNSON. Might I outline briefly the educational system we have in the Army?

Mr. ANTHONY. I wish you would, especially that pertaining to these schools.

Col. JOHNSON. Starting with the basic school and going through the line school and the general-service schools, we have what are known as special-service schools, special in that they refer to the different branches of the service—the Cavalry, the Infantry, the Field Artillery, etc. There are 12 of those. These schools provide courses for officers immediately upon their entrance into the service, and for company officers and field officers. All of these schools are devoted entirely to the technique and tactics of these special services. Certain officers graduating from these schools, mostly field officers for the present, are promoted in a general scheme of instruction to the line school at Fort Leavenworth, which is one of our large general-service schools, general service meaning for officers from all branches who go to these schools. At these general-service schools combined tactics are taught. The three general-service schools consist of the School of the Line at Fort Leavenworth, the General Staff school at Fort Leavenworth, and the General Staff College here in Washington.

In regard to the purposes of the various schools, the School of the Line is for training officers and commanders for the smaller units, staff officers of a division, for example, and commanders of units within the division, as well as the functions of division staff officers and division commanders.

Mr. ANTHONY. After a man is perfected in his own branch at a basic school then he goes to the general-service school where he is fitted for command of all branches?

Col. JOHNSON. Yes, sir.

Mr. ANTHONY. And also for the exercise of staff duties in connection with the administration of the largest units of the Army?

Col. JOHNSON. Yes, sir. Each school is progressive and is supposed to be, and in fact, is, a little higher in the curriculum than the one preceding it.

Mr. ANTHONY. And the principle of that school was worked out during the recent war in the case of our officers who had never had command of large bodies of troops before this war, the men who had been trained in the exercise of ordinary staff duties in the service schools were unable to step in and administer these commands. That is roughly the theory on which they are run?

Col. JOHNSON. Yes, sir. Our experience in the World War showed the necessity for these schools and this training.

The General Staff School trains the higher staff officers for corps and army or general staff duty with troops, and we propose to have the higher commanders also trained there; that is in the functions of division, army corps, and army commanders.

The General Staff College here at Washington is virtually the last step in an officer's complete education; and the purpose of that is for the training of officers of the War Department General Staff and high command; that is, corps and army commanders in the case of national emergency.

Mr. CRAYTON. Then that education is supposed to be one system, unified?

Col. JOHNSON. One system, unified from the primary work in the basic schools up, advancing officers as they show ability.

Mr. CRAMTON. And it is planned by one central authority?

Col. JOHNSON. The War Department General Staff, the War Plans Division, has the coordination of all of the school work.

Mr. CRAMTON. It is planned and supervised by them?

Col. JOHNSON. Planned and supervised by them, and the work coordinated between the various schools.

SERVICE OF TRANSLATORS.

Mr. CRAMTON. Then, why should it not be possible to plan that work to avoid duplication of expense? For instance, in this matter we have been speaking of, of translators, every place where you have a school, or a library, you have one or two or more translators. Now, it must be that there is only a limited amount of matter published in foreign languages currently that is of real value to you. And why is it not possible to have your central authority translate that which is worthy of study, and send it to the schools making use of it? For instance, you have here half a dozen translators—that is for the General Staff; and then in the Infantry school you want two translators down at Camp Benning, and translators in the Field Artillery School, and translators in the Cavalry School; and then when you go to Fort Leavenworth, which is a higher school in the same branches, instead of using that which is translated by the lower schools, you must again translate it for your own use.

Col. JOHNSON. Yes, sir; except that at the special service school very little is translated which pertains to combined training of all arms.

Mr. CRAMTON. Now, if the system of education is coordinated there ought to be some way of translating that for the common use.

Col. JOHNSON. The amount that is required for translation at the present time is enormous. The translators who were referred to a short while ago are attached to the Military Intelligence Division here. They have work in front of them that will keep them busy for over a year with the matter which has been given to them for translation now. That is of a general nature, not especially applicable to instruction or school work—all manner of papers that come into the Military Intelligence Division. At each one of the schools only the matter is translated which has a particular bearing on the instruction at that school.

Mr. CRAMTON. Well, how can you be sure that the translator at Fort Leavenworth is not translating the same article that the translator is working on at Camp Benning?

Col. JOHNSON. There are lists put out from time to time showing the work. We know the work that is being translated at the various schools. The work that is being translated at Fort Leavenworth is foreign matter which pertains to the combined arms—all of that and not especially to the Cavalry or the Field Artillery.

Mr. CRAMTON. I take it that these articles by foreign experts are not labeled, like the textbooks in a school—"First Reader," "Second Reader," "Intermediate," and "Grammar School?"

Col. JOHNSON. No, sir.

Mr. CRAMTON. So, that it would be difficult for the translators to know whether a certain article is their job or not.

Col. JOHNSON. No, sir; the translators do not have the say; the matter is given to them by the commandant of the school, and all matter which we obtain from foreign services is labeled, for instance, "Machine Gun Work," "New Policies with Regard to Infantry," "Latest Inspection of Artillery," all of which indicates by its very name the branch of the service to which it pertains. If we had a central corps of translators here, it would merely mean that we would have a greater number here, and we would have to have some officers here from the various branches who would say what particular thing they wished to have translated for their own school. If we give them to the school to translate, then there is no squabble as to whether we are going to translate for the Infantry or the Cavalry to-day and the Artillery to-morrow; each school gets the matter translated which it wishes to have translated; and I do not think there is any duplication, or a great amount more of expense with the present system than there would be if we had one coordinated translating corps here.

Mr. CRAMTON. It is left to each school to determine as to whether they want particular book or article translated?

Col. JOHNSON. Yes, sir.

Mr. CRAMTON. And having determined that, they then have the article translated for themselves?

Col. JOHNSON. Yes, sir; they translate articles for their own use. For instance, the Infantry would not translate anything which pertained solely to the Artillery.

Mr. CRAMTON. Well, I had in mind that there must be some work that would overlap and be of interest to more than one branch of the service.

Gen. LORD. Might I say, Mr. Chairman, that the translators in these schools are not a product of the war. They have had translators in these schools provided in the bills heretofore, prior to the war, as you will find on page 7 of the bill; but I think they have increased the number of translators.

Mr. Sisson. I do not think there is any complaint on the part of the committee in having a reasonable number of translators; but we do not want to multiply them ad infinitum every time you have a new branch of the Government. These things do not amount to much in one item, but when you take it all through the Government service it amounts to a considerable sum.

SOURCE OF STUDENTS.

Mr. CRAMTON. Where do you get the material for these schools?

Col. JOHNSON. From our military attachés, largely.

Mr. CRAMTON. I mean these students; where do you get them from?

Col. JOHNSON. I do not understand.

Mr. CRAMTON. The first lieutenants and the second lieutenants, do they come to you from West Point in part or are they entirely from civil life?

Col. JOHNSON. From both sources.

Mr. CRAMTON. And in what proportion?

Col. JOHNSON. For instance, at the Infantry School now there are approximately 75 from West Point, and something over 400 from other sources.

Mr. Sisson. Is the man who goes to the school selected for that course or does he elect to take it?

Col. JOHNSON. It is required that they take these various courses.

Mr. Sisson. All of the officers?

Col. JOHNSON. Yes, sir.

Mr. Sisson. Well, you can not put them all in the schools?

Col. JOHNSON. Yes, sir; except at the General Staff School and the General Staff College.

Mr. Sisson. Well, you can not get all of the officers in the schools, and you have to select a certain number for each year, do you not?

Col. JOHNSON. We hope to have the schools developed so that every year we can take care of the new increment which comes in. We will be able to do that after the great increment, which we are trying to educate now, have received their education.

Mr. Sisson. Do you have any schools for the privates?

Col. JOHNSON. Yes, sir.

Mr. Sisson. Do you have them in connection with these institutions in any way?

Col. JOHNSON. There are schools for enlisted men at all of the special service schools.

Mr. Sisson. For example, you take the school that you are connected with, the one at Fort Leavenworth.

Col. JOHNSON. Yes, sir; the General Service School.

Mr. Sisson. Now, you have a certain number of privates there?

Col. JOHNSON. No, sir; we have no privates there.

Mr. Sisson. None whatever?

Col. JOHNSON. No, sir; this is an advanced school for officers.

Mr. Sisson. Do you have any at Camp Benning?

Col. JOHNSON. Yes, sir.

Mr. Sisson. How many privates do you have in training there?

Col. JOHNSON. I am not connected with that school; but Col. Malone, who was here to-day, can give you that information. About 500, for next year, I think.

Mr. Sisson. Well, will you give us the figures for the Field Artillery?

Maj. SLOANE. The number in training in the Field Artillery School was, 1,070 specialists——

Mr. CRAMTON (interposing). Those are noncommissioned officers, are they not?

Maj. SLOANE. These are the highest grades of noncommissioned officers; they are not trained with the privates.

Mr. Sisson. I am a champion of training the privates.

Maj. SLOANE. You will come to that when you reach the items relating to vocational education.

TRAINING OF PRIVATES.

Mr. Sisson. Well, I would like for some officer present to answer this question: About how many privates do we have now in training in the various schools? Can any of the officers present give us that information?

Col. JOHNSON. What schools do you mean, sir?

Mr. Sisson. I mean any school where the privates are being trained or given an education of any kind.

Col. JOHNSON. These vocational schools virtually provide for every private that comes into the Army.

Mr. Sisson. Then, they all have a certain amount of education?

Col. JOHNSON. They all have a certain amount of education, which is divided along the general lines of five-eighths military instruction and three-eighths general education in any subject which they choose. But these schools for the privates have no reference to these higher schools of which we are speaking now.

Mr. Sisson. I understand that; I knew they have no connection with these.

So every private gets instruction three-eighths of the time of his own choice.

Col. JOHNSON. Approximately three-eighths of the time every day is devoted to educational work.

Mr. ANTHONY. I guess that is all, Col. Johnson.

Col. JOHNSON. All right, sir.

INFANTRY SCHOOL, CAMP BENNING, GA.

STATEMENTS OF COL. PAUL B. MALONE, INFANTRY, ASSISTANT COMMANDANT THE INFANTRY SCHOOL, AND MAJ. JOSEPH A. ATKINS, OFFICE OF CHIEF OF INFANTRY.

Mr. ANTHONY. Major, what is your official status?

Maj. ATKINS. I am in the equipment section of the office of the Chief of Infantry.

Mr. ANTHONY. You have to do with the Infantry School at Camp Benning?

Maj. ATKINS. I have some association with it in the office.

Mr. ANTHONY. You are here to give us some information in regard to the estimates for the Infantry School at Camp Benning?

Maj. ATKINS. Yes, sir.

Mr. ANTHONY. How much are you asking for this year?

Maj. ATKINS. We asked for an item, which has been cut to \$47,300.

NUMBER OF STUDENTS.

Mr. ANTHONY. How many men have you there under instruction this year, and how many will you have there next year?

Maj. ATKINS. At present we have 646 student officers. It was slightly larger than that at the beginning of the term. There are at the present time 646 officers there. Next year we want to increase that by at least 150 officers and possibly have also 500 noncommissioned officers.

Mr. ANTHONY. Where will the additional amount you are asking for this year, about \$7,000, be used?

Maj. ATKINS. In continuing to supply and purchase some of the material for the upkeep of the school, and adding to the original outlay for conducting the school.

INSTRUMENTS AND MATERIAL FOR INSTRUCTION.

Mr. ANTHONY. Have you any other general information you would like to give the committee?

Maj. ATKINS. We have the estimate more or less divided. I understood from previous questions that you desired to know why this amount was wanted. We have divided it into several different paragraphs. The amount for equipment and material includes office and school furniture, desks, clocks, steel shelving, rip-saws and motors, special typewriters, and carriages, dictaphones, spare parts, and special tools and hardware.

DRAFTING SUPPLIES.

Under the item for drafting supplies are included instruments, plates, and engines, inks, paper, etc., for students and departments; paints, brushes, etc.; field target designs, enlarging, photographing blue prints. The amount used for special instruments includes instruments for experiments in ballistics, firearms, sights, machine-ists, and electrical.

PURCHASE OF TEXTBOOKS, PAPERS, ETC.

Under the heading of books, maps, periodicals, are included printing machinery and supplies, mimeographs, and ditto machines, addressograph supplies, binding tools, leather, inks, cardboard, paper and bristol board.

EMPLOYMENT OF SPECIAL AND TECHNICAL SERVICES.

Mr. ANTHONY. You might tell us briefly what the different items are.

Maj. ATKINS. One item which is incorporated in the bill is for the translators, two of them at \$1,800 each. Then, for special services we ask for one ballisticians at \$2,000; two linotype operators at \$2,000 each; one photographer at \$1,800; and one draftsman at \$1,600. We also ask for \$10,000 for books, maps, and periodicals; \$5,000 for equipment and material; \$3,000 for special instruments; \$3,000 for drafting material; \$13,000 for printing machinery and supplies; photographic and laboratory supplies; and \$300 for repairs.

Mr. ANTHONY. I notice you ask for two translators at \$150 a month each.

Maj. ATKINS. Yes, sir.

Mr. ANTHONY. They have always been carried at \$100 a month each. What is the reason for the increase?

Maj. ATKINS. I am told that that is correct.

Mr. ANTHONY. Can you not get men to do that work at \$100 a month?

Maj. ATKINS. I understand that is the minimum amount they can get the men for with the intelligence and education which is required to translate the documents they expect to use.

Mr. ANTHONY. We have always secured them at \$100 a month. Are these enlisted men?

Maj. ATKINS. No, sir.

Mr. ANTHONY. They are civilians?

Maj. ATKINS. Yes, sir; they are civilians. Under the bill as drawn, they will be hired by the commanding general at that post, with the approval of the Secretary of War.

Mr. Sisson. Do they get their keep?

Maj. ATKINS. No, sir; they do not.

Mr. Sisson. They pay their own board?

Maj. ATKINS. I understand they do; I think that is their entire salary.

Mr. Sisson. Are you sure of that?

Maj. ATKINS. Only from what I know in general as to the way civilian help is hired in the Army.

Col. HICKMAN. That is a fact; they do keep themselves.

Mr. ANTHONY. Instead of hiring translators at each school why can you not hire them at one school and use the documents they translate at all schools?

Maj. ATKINS. There are several different branches in the Army, and the information we are getting at the present time requiring translation is voluminous, and it would be almost an impossible task for one branch of the Army to collect, collate, and translate all the information for the other branches.

Mr. ANTHONY. What are you translating?

Maj. ATKINS. Different reports and documents based upon this war and documents written by officers who have made good in the war in other services, and articles of that nature generally.

Mr. CRAMTON. Is that a duplication of the work of the Bureau of Military Intelligence, where they have a staff of translators?

Maj. ATKINS. No, sir. I would hardly say it was because this is based upon tactics that we teach at the school. While it is true that they get a lot of valuable information for us, most of it being translated when it comes to us, it is information rather than the principles upon which we can form doctrine.

PRINTING PLANT.

Mr. ANTHONY. Do you have your own printing plant there?

Maj. ATKINS. Yes, sir.

Mr. ANTHONY. How large a plant have you?

Maj. ATKINS. As to the exact size I am unable to give you the desired information.

Mr. ANTHONY. How much money are you asking for printing?

Maj. ATKINS. For printing we are asking \$13,000. That includes printing, machinery, and supplies—photographical and laboratory supplies also.

Mr. ANTHONY. So that you are really making large additions to your printing plant at this time?

Maj. ATKINS. We are trying to complete one, rather than making additions to one. It has been more or less of an improvisation.

Mr. ANTHONY. You do not know what they have in the plant now?

Maj. ATKINS. Not exactly. I know they have been trying to get a linotype; whether that has arrived there I am unable to state.

Mr. Sisson. Who made these estimates?

Maj. ATKINS. They were made at the school.

Mr. Sisson. You are not informed about what they have there?

Maj. ATKINS. Not particularly enough to answer in detail, as I understand it, as to the printing plant.

Mr. ANTHONY. In order to get the details of the work carried on there we had better get that information, I think, from somebody directly connected with the school.

Maj. ATKINS. I can not give you the details in reference to what you have asked about.

Mr. ANTHONY. Col. Malone is here; he is assistant commandant at Camp Benning.

Maj. ATKINS. Yes, sir. He can give you much more information about it than I.

Mr. ANTHONY. What you are doing is to give us the figures which passed through your hands in the Office of Chief of Infantry?

Maj. ATKINS. Yes, sir.

Mr. ANTHONY. If the major will put in the record the items that compose the estimate at Camp Benning we will question Col. Malone as to the necessity for the different items.

Maj. ATKINS. I will do that.

(The statement referred to is as follows:)

INCIDENTAL EXPENSES—INFANTRY SCHOOL.

Infantry School, Camp Benning, Ga.: For the purchase of textbooks, books of reference, scientific and professional papers, instruments and material for instruction, employment of technical and special services, including the services of two translators at the rate of \$150 per month each, to be appointed by the commandant of the school, with the approval of the Secretary of War, and for the necessary expenses of instruction at the Infantry School, Camp Benning, Ga. \$47,300

Translators, 2 at \$1,800. ----- \$3,600

Special services—

Ballistician -----	\$2,000	
Linotype operators, 2 at \$2,000 -----	4,000	
Photographer -----	1,800	
Draftsman -----	1,600	
		<u>9,400</u>

Books, maps, periodicals -----	10,000
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Equipment and material -----	5,000
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Special instruments -----	3,000
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Drafting material -----	3,000
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Printing machinery and supplies, photographic and laboratory supplies -----	13,000
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Repairs -----	300
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47,300

Mr. SLEMP. Is Camp Benning an old institution?

Maj. ATKINS. It is about two years old.

Mr. SLEMP. Before Camp Benning was organized where was the Infantry school located?

Maj. ATKINS. At Fort Sill.

Mr. SLEMP. Do you give Infantry instruction at Fort Sill?

Maj. ATKINS. No, sir. That has all been moved to Camp Benning and combined with other Infantry activities. That is the only one we have.

Mr. SLEMP. Is there a complete educational establishment at Camp Benning and are the buildings of a permanent nature; are they permanent structures?

Maj. ATKINS. They have some permanent and some temporary. The project has not been finished.

SCHOOL TERM.

Mr. SLEMP. What is the length of the term through which an officer passes at the Camp Benning school?

Maj. ATKINS. At present it is nine months for the regular officers and three months for the National Guard and reserve officers, with additional instruction to follow it.

Mr. SLEMP. Do you have noncommissioned officers there?

Maj. ATKINS. It is our intention to have them.

Mr. SLEMP. Is it the intention of the department to put practically all of the officers of the Infantry through this school?

Maj. ATKINS. All those who are junior enough. It extends now up to the senior colonels.

Mr. SLEMP. Do you think with your equipment there and with this amount you are asking for—\$47,300—you will be able to carry on the work you intend to do there? I do not see how you can do it. You have only 500 officers to whom you can give instruction for the next year or so?

Maj. ATKINS. No, sir; we expect to increase the number to something like 800 officers and 500 enlisted men, making about 1,300 or more altogether.

Mr. SLEMP. How often are these officers sent back for instruction? Do they graduate them?

Maj. ATKINS. They are graduated in different courses. Probably the junior second lieutenants may go back there within a term of 8 or 10 years for the captain's course.

FACILITIES.

Mr. SLEMP. Have you facilities to enable you to train all the officers of the Infantry?

Maj. ATKINS. No, sir; not sufficient facilities as we see it, but we are doing the best we can.

Mr. SLEMP. It seems to me that \$47,000 is not very much to spend for that purpose.

Maj. ATKINS. That amount is for the incidental expenses in carrying on the work.

Mr. ANTHONY. The amount of \$47,300, as I understand it, is merely for the expenses connected with the running of the school?

Maj. ATKINS. Incidental expenses.

Mr. ANTHONY. The amount for salaries, quartermaster stores, and other things comes from other appropriations?

Maj. ATKINS. Yes, sir.

Mr. ANTHONY. Colonel, I believe you are assistant commandant of the Infantry School at Camp Benning?

Col. MALONE. Yes, sir.

PRESENT ORGANIZATION.

Mr. ANTHONY. You can tell us, if you will, what is the scope of the work you propose to undertake there during the coming year.

Col. MALONE. During the preceding year, which terminated last June, we had 128 students. Beginning with the 1st of November, this year, we organized classes, including the field officers, the company officers, and newly commissioned officers, the total classes numbering around 700; the actual number on the day of opening being 702. There have been certain losses, and the classes now consist of 646 officers.

Mr. ANTHONY. How are those apportioned?

Col. MALONE. There are 92 field officers of the Regular Army, 120 company officers of the Regular Army, and the rest of the officers of the Regular Army are lieutenants, newly commissioned, including the class from the United States Military Academy, numbering 72. There were, on the date of my departure from Camp Benning, 41 National Guard officers in training. The National Guard has, through the Bureau of Military Affairs, notified us that on the 25th of February they will send a class, probably, of 75 National Guard officers, so that the classes will then number about 675 on the 1st of next March. They will graduate on the 30th of June.

Mr. Sisson. They enter in February?

Col. MALONE. They report in February, the class of 75 National Guard officers, and begin the course on the 1st of March. We have also a class there now which will leave at the end of January, consisting of 41 National Guard officers.

Mr. SLEMP. Have you any enlisted men in the school?

Col. MALONE. The noncommissioned officers' classes have not yet been staged. The capacity of the plant is not sufficient to permit us to begin their training, but we will begin the training of them next year, probably on the 1st day of October, and we hope to have 500 noncommissioned officers in the school. It may be we will not be able to do so.

Mr. ANTHONY. Last year you were given \$250,000 to complete certain work there.

Col. MALONE. Yes, sir.

ADDITIONAL APPROPRIATION FOR 1921 FOR CONSTRUCTION PURPOSES.

Mr. ANTHONY. Was there not an additional appropriation of 1 million dollars?

Col. MALONE. Yes, sir.

Mr. ANTHONY. For new construction?

Col. MALONE. For the completion of construction already started.

Mr. ANTHONY. What have you accomplished with that?

Col. MALONE. I am having made up a complete detailed statement of exactly what has been accomplished by that.

Mr. ANTHONY. Have you spent that money?

Col. MALONE. It will have been spent on the 1st day of March.

Mr. ANTHONY. What have you gotten for it?

Col. MALONE. Roughly speaking, with the \$250,000 that we received, the east and west groups were closed in to prevent deterioration from water, and the water system was installed.

Mr. ANTHONY. The partially completed barrack building?

Col. MALONE. The partially completed barrack buildings were made waterproof; the sewage connections were completed and some of the buildings were opened; some portions of the barracks were

completed to protect them from further deterioration, and a complete water system was installed.

BUNGALOWS FOR OFFICERS.

Mr. ANTHONY. Did you build any new bungalows for officers' quarters?

Col. MALONE. Not out of the \$250,000.

Mr. ANTHONY. How are you quartering the officers?

Col. MALONE. There are a few bungalows now finished that came out of the million-dollar appropriation. They will all be finished on the 1st of March, and after they are finished they will be occupied by officers. When I left there were 12 of those in use. About 1.3 per cent of the officers were in permanent quarters. The rest were living in tents, cantonment barracks, houses constructed by themselves, or in Columbus, 9 miles distant.

(The complete statement of the construction secured by the expenditures since construction was resumed pursuant to the act of February 28, 1920, is as follows:)

Statement showing the construction accomplished at Camp Benning, Ga., by the expenditure of \$320,000 appropriated by the act of Feb. 28, 1920, and \$1,000,000 appropriated by act of June 5, 1920.

[All buildings except 1(d) below under 4 are of wood and not of brick or other permanent type of structure.]

1. Appropriation \$250,000, act of February 28, 1920, Camp Benning, Ga.
The following work is being performed under the above appropriation:
 - A. Installation intake crib and conduit from Upatoi Creek.
 - B. Installing raw-water pumping station, including building.
 - C. Installing a filter plant and high service pumping station, including buildings, settling basin, and clear-water basin.
 - D. Installing storage tanks, including foundations.
 - E. Extension of distribution system, including supporting trestle.
 - F. Electric light and power (small extensions).
 - G. Sewers, manholes, etc., in blocks 5, 6, and 7.
 - H. Sewers, manholes, etc., in blocks 8, 9, and 15, and extension to garage.
 - I. Sewers, manholes, etc., in blocks 21 and 22, including trunk-line sewer from existing sewer.
 - J. Extending water and sewer systems into block 21 and connecting buildings in blocks 23 and 19.
 - K. Inclosing 13 barrack buildings in block 3.
 - L. Inclosing 17 N. C. O. quarters buildings in block 19.
 - M. Inclosing 19 barrack buildings in block 21.
 - N. Inclosing 9 barrack buildings in block 23.
2. Appropriation, \$70,000, act of February 28, 1920, Camp Benning, Ga.
Under the above appropriation about 26 miles of 60 cm. railroad are being constructed on the reservation.
3. Appropriation A. S. A., 1920, \$36,000.
On the above allotment five steel hangars were erected at Camp Benning.
4. Appropriation, \$1,000,000 present fiscal year.
Under the above appropriation the following work is being carried out:
 - (1) Completion and construction of 197 buildings which include (a) the completion of 23 noncommissioned officers' quarters (to be used by commissioned officers); (b) 20 student officers' quarters, built for 8 officers, but to be occupied by 14 officers; (c) 1 storehouse for officers mess; (d) 1 student officers' mess building (brick); (e) 1 animated target house; (f) 20 apartment buildings (4 families each); (g) 4 lavatories in block 5; (h) 1 quartermaster's storehouse; (i) 17 buildings remodeled for temporary hospital, including connecting corridors for hospital buildings.
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 - (2) One permanent refrigeration plant.

- (3) One motor transport repair shop.
- (4) One mortuary.
- (5) One tent camp, complete.
- (6) Seven thousand feet of cast-iron water main.

The balance remaining will be used for such purposes as will be designated later, possibly including the construction of laundry.

Mr. ANTHONY. You have quarters for the 600 officers?

Col. MALONE. Not permanent quarters; the majority of them will have to remain in barracks. Twelve had permanent quarters at the date of my departure.

Mr. ANTHONY. Where do the officers' families live?

Col. MALONE. They are distributed between the post and town.

Mr. ANTHONY. In the city of Columbus?

Col. MALONE. Yes, sir.

Mr. ANTHONY. Where they draw commutation?

Col. MALONE. Yes, sir. I can give you an exact statement of their distribution. There are now 929 officers at Camp Benning. This includes commanders of troops as well as students. Five hundred and ninety-three are now living in the tent camp, in cantonment barracks, or in tent houses, and 25 in quarters constructed by themselves at their own expense.

The permanent quarters already constructed, when I left there numbered only 12, and they were occupied by 12 families. Our need for additional quarters is most urgent.

NUMBER OF ENLISTED MEN.

Mr. ANTHONY. How many enlisted men are there there?

Col. MALONE. There were on the day of my departure 4,307.

Mr. ANTHONY. The purpose of this school is to give Infantry officers training under actual field conditions?

Col. MALONE. Yes, sir.

Mr. ANTHONY. And it is doing that on a large scale?

Col. MALONE. We call it a school for the training of Infantry officers and noncommissioned officers in the technique of Infantry weapons and the tactics of Infantry units, including the Infantry brigade.

EFFECT OF REORGANIZATION ACT ON NUMBER OF OFFICERS IN ARMY.

Mr. ANTHONY. How many thousand new officers will be appointed in the Infantry of the Regular Army under the new reorganization act?

Col. MALONE. The reorganization act pretty nearly doubled the officers of the Infantry.

Mr. ANTHONY. Approximately how many new Infantry officers will there be who will come in from outside of the Regular Army?

Col. MALONE. I am not sure of the number.

Mr. ANTHONY. I would like to have that number, because as I understand it it is your purpose to run all of them through this school.

Col. MALONE. Yes, sir. I will furnish the committee with a complete statement. Roughly speaking, the number of Infantry officers has been doubled, and all those officers will require training. We propose therefore to train 800 next year.

NOTE.—Under the national defense act approximately 3,600 Infantry officers are or will be acquired by the Infantry since hostilities began in 1917 and must, therefore, take the courses at the Infantry school, Camp Benning, Ga.

ASSIGNMENT OF GRADUATES.

Mr. ANTHONY. When these officers get through with that course, where do they go?

Col. MALONE. They go back to the regiments from which they come, to become instructors or troop leaders in those units. Our mission, however, has been fixed with regard to the policy of national defense. We must produce a fixed number of officers qualified to take instruction as staff officers in the future. When Gen. Haan, Chief of the War Plans Division of the General Staff, was at our opening exercises on November 1, he made a rough estimate of our obligations for the future. He stated that, roughly speaking, the Infantry school would be obliged to provide 82 qualified student officers to enter the Army School of the Line next fall, and after this year, according to the general plan of mobilization, the Infantry school would be required to produce 150 qualified officers to enter the School of the Line, annually.

Mr. Sisson. What do you mean by the School of the Line?

Col. MALONE. That is a school which exists at Fort Leavenworth, Kans., and which has for its mission the training of officers in staff duties and in tactics and tactical command of the combined arms. In our school we teach the technique and the tactics of the Infantry only up to and including the brigade. There are 12 special-service schools, one for each arm. At Fort Leavenworth they teach the tactics of the combined arms and the staff duties pertaining to units above the brigade.

CHARACTER OF BUILDINGS UNDER CONSTRUCTION.

Mr. Sisson. Out of this \$1,000,000 you say you have constructed 12 officers quarters. Of what materials are those quarters constructed?

Col. MALONE. I did not mean to state that. I think I said there were 12 constructed when I left.

Mr. Sisson. That is what I mean.

Col. MALONE. The actual number of sets of quarters which will be available after the million dollars shall have been expended totals 188.

Mr. Sisson. What are you building the quarters of?

Col. MALONE. The quarters which were built under this appropriation were all started before the appropriation was made, and the million dollars is used to complete them on their original plan. They were started as wooden structures of the character used in the cantonments.

Mr. Sisson. What is the cost of each one?

Col. MALONE. I could not answer that offhand.

Mr. ANTHONY. Your officers quarters were of the bungalow type?

Col. MALONE. They were all wooden when they were started, and they were completed upon the plan originally drawn. Twenty-three

are of the bungalow type; all the others which have been started are of the apartment type.

Mr. ANTHONY. You are converting a number of the old cantonment type barracks into officers quarters with this money?

Col. MALONE. But we did not convert them; we used them without their being converted. Cantonment barracks of the type constructed for enlisted men are occupied by officers now at the rate of 30 officers to a barrack, field officers, National Guard officers, Reserve officers, or noncommissioned officers.

Mr. ANTHONY. Have you changed your ideas with regard to the suitability of that reservation. Have your ideas in that regard been changed any?

Col. MALONE. No, sir; it is the most splendid thing we have ever done. It is better than anything I have ever seen in England, France, Germany, or anywhere else.

AREA.

Mr. ANTHONY. What is the area of the Camp Benning reservation?

Col. MALONE. 97,000 acres of land, approximately.

Mr. ANTHONY. Have the land purchases been completed?

Col. MALONE. No, sir; they have not.

Mr. Sisson. What is the character of these officers' quarters?

Col. MALONE. They are all constructed of wood according to the original plan prepared during the war, with slight modifications which increased the cost of construction and the comfort of the houses.

Mr. Sisson. Are they all just alike?

Col. MALONE. All the bungalows are the same. The houses constituting what we call the "east and west student groups" are two-story apartment buildings. The buildings of the "east group" are built to accommodate four families in each building, each family having four rooms, with two families on each floor. The buildings in what we call the "west group" were begun and had progressed to such a stage during the war that we found we could not, without a great deal of expenditure, convert them, so we had to complete them on an unsatisfactory plan. They will eventually be used as bachelor quarters, a whole house at the rate of one bachelor to each room, with one bathroom on each floor, but at present we will be compelled to use them for families because we have only enough quarters for a small portion of the personnel.

Mr. Sisson. What is the cost of the new bungalow type you have been constructing, approximately?

Col. MALONE. I have not the figures on that. I can merely furnish a statement of the total construction that has been accomplished by the expenditure of the \$250,000, and the \$1,000,000.

COST OF QUARTERS PER UNIT.

Mr. Sisson. Can you supply for the record information as to what these quarters are costing per unit?

Col. MALONE. I can get those figures by applying to the Construction Division, where the records are located.

Mr. Sisson. I wish you would do that.

Col. MALONE. I will do so.

(The following is the statement:)

The bungalows that are being completed at Camp Benning are those that were actually started for noncommissioned officers' quarters. They have been modified to provide five rooms and bath in order to use them for commissioned officers. No dining room is provided. The buildings were started as wooden structures, were partly completed and were only in a fair state of preservation when completion was contracted for. The plans for completion were made on a semipermanent basis in order to take advantage of expenditures that had already been made. No definite record is available to show the amount of money expended on the work done before completion was contracted for. The contract for completion provided for the use of that portion of the buildings already in place, and such material as could be listed for that purpose that was on the ground. The contract for completion of these buildings was a part of a much larger contract and no special bid was obtained on completion of these buildings alone.

Mr. SLEMP. Do you have charge of the entire 97,000 acres? Are you the land superintendent, as it were?

Col. MALONE. You mean I; in person?

Mr. SLEMP. Yes. In other words, is your jurisdiction limited to the surroundings of the post, or do you have supervision of the entire area?

Col. MALONE. The school is organized with a commandant, as the commander of the school and of the reservation. He is Gen. Gordon. I am the assistant commandant, charged with instruction and administration in connection with instruction.

Mr. SLEMP. Is any money spent on the area outside of your immediate post for upkeep, for drainage and clearing?

Col. MALONE. Thus far no money has been spent outside of the immediate post.

Mr. SLEMP. It is not much of a burden then on the Government to retain the 97,000 acres?

Col. MALONE. It is not a burden at all; it is a great asset.

Mr. SLEMP. In what way is it an asset?

Col. MALONE. For training purposes.

NUMBER OF OFFICERS IN TRAINING.

Mr. SLEMP. How many men do you have down there?

Col. MALONE. For training?

Mr. SLEMP. Yes.

Col. MALONE. 646 officers now.

Mr. ANTHONY. Then why do you need 97,000 acres?

Col. MALONE. We need one or two places in this country where we may simulate or actually conduct attacks of the character that will be employed in actual warfare. That contemplates an organization for attacks of the infantry, supported by all of the other arms. When the infantry attacks field artillery will furnish a rolling barrage and the troops must advance over great distances supported by artillery and machine gun fire. All units of the attacking organization must absolutely move up together and upon reaching the objective the field artillery must lay down their barrage in front of the infantry. The latter must dig in for the night. They must resume the attack the next morning. The artillery must change its position, and keep up its fire to the end of the battle. This requires great areas the equivalent of a modern battle field.

Mr. SLEMP. What I had in mind was whether the way you manage the reservation involves any special amount of money for upkeep expenditures, etc. I did not know whether you were digging ditches or making clearings or leveling hills, or making mounds, or doing anything of that sort that you may want for that purpose on the 97,000 acres. But, as I understand it, you have nothing for upkeep and general overhead.

Col. MALONE. No; the only thing we have to do is to put out five or six noncommissioned officers who constitute what we call range guards, to prevent fire or the intrusion of unauthorized persons, and to prevent traffic in liquor, and prevent invasion of danger zones.

Mr. SLEMP. Is the reservation fenced in?

Col. MALONE. It is not fenced at all.

Mr. SLEMP. Is it proposed to do that?

Col. MALONE. No estimate has ever been submitted for that.

CULTIVATION—FARMING PROJECT.

Mr. SLEMP. Is any of it in cultivation?

Col. MALONE. Quite an area is in cultivation now.

Mr. SLEMP. Do you lease it out?

Col. MALONE. Not yet. That is under consideration; that is, a general farming project is under consideration for the areas that will not interfere with the military operations of the school.

Mr. SLEMP. You might turn that over to the Department of Agriculture, then.

Col. MALONE. We will have to fire over it with the machine guns and field artillery, so the area that can be cultivated is limited.

OBJECT OF ESTIMATE.

Mr. ANTHONY. I wish you would tell us, Colonel, for what purpose you are going to use the \$47,000 asked for? How much did you have last year?

Col. MALONE. \$38,000 was the amount we had last year. Last year we really only had to consider the materials for our very much reduced classes of that year, only 128 officers. This estimate contemplates classes amounting to 800, so our needs are very much greater. Our needs, however, are not proportionately greater, and this amount of money will be sufficient to do all the things needed. Here, for example, is an item for a ballistician, and the special need of that man is this.

EXPERIMENTAL RANGE.

As Mr. Anthony will remember, I think, we have a splendid experimental range, 5,300 yards in extent. Unless the flight of the bullet is determined by experiments instead of by calculation serious errors will be found in ballistic tables, so serious as to make it absolutely dangerous for the infantry to advance under a fire that was delivered according to such data. There never was heretofore a range so great that we could trace the flight of the bullet all the way. We had to pick up the bullet at a certain point and calculate its flight thereafter. The calculations are subject to serious error. We can

not afford to operate with weapons whose trajectory is calculated theoretically because we would ultimately kill our own people. They now obtain this data experimentally. We have no one available at the present time for this work who is a qualified ballistician.

ESTIMATE FOR BALLISTICIAN.

Mr. ANTHONY. Have you not got that type of man in the Army?

Col. MALONE. We have one man whose experimental work has produced all these results—Maj. Wilhelm—but this man must be employed in the office all the time for calculating the data we secure from the range, and the officer who conducts the firing is on the range. The civilian ballistician is Maj. Wilhelm's assistant.

Mr. ANTHONY. How much are you estimating for that man?

Col. MALONE. \$2,000. Formerly the Ordnance Department loaned us a man, but the Ordnance Department can no longer charge against its appropriation the money to pay for purely Infantry experiment, so we feel that we must take it up this year.

COORDINATION WITH ORDNANCE DEPARTMENT.

Mr. Sisson. Would it not be well to coordinate with the Ordnance Department in this experimental work?

Col. MALONE. They are coordinating with us. They get the result of all the work we do and we get the result of their work, and we have a representative of the Infantry on the technical board in connection with Ordnance. All that data that we have goes to them, and their data comes to us, so there is complete coordination. But we can not get along very well without that man.

Mr. Sisson. Have they a sufficient supply of that type of men in the Ordnance Department?

Col. MALONE. No, sir; we will have to hire them. The Ordnance Department served notice on us that after the 30th of June they could no longer help us in connection with that item.

Mr. Sisson. That does not answer the question. Can they get men to do those experiments for that money? Have they such men in their employ now?

Col. MALONE. They have.

Mr. Sisson. Why would it not be wise to let Congress determine that and see if we can not send a man down there for you?

Col. MALONE. If you took men of that kind away from the Ordnance Department it would hamper the work that they do.

Mr. Sisson. The question is whether or not it is more useful in the Ordnance Department to have such a man there or to have a man of that kind detailed to you.

Col. MALONE. I do not like to reveal exactly the extent to which our experiments have modified beliefs concerning the trajectories of weapons, but—

Mr. Sisson (interposing). If you had a man who was already experienced and who could make all these observations and gather this data, he perhaps would be more serviceable to the Ordnance Department than a man you might get to put on that work.

Col. MALONE. We have had conferences with the Ordnance Department, and they are very desirous that this be done in this way. Col.

Ruggles was down there and went over the ground; the plan was drawn up, and the two departments are in absolute accord.

Mr. Sisson. I have no sort of criticism to offer of the work you are doing. My only idea was to give you the man you wanted.

PURCHASE OF TEXTBOOKS, ETC.

Mr. ANTHONY. How much are you asking for the purchase of professional and scientific books?

Col. MALONE. \$10,000.

Mr. ANTHONY. In that connection it is interesting to note that one of the committees on investigation has found that we authorized, under the head of contingent expenses of the War Department, an item for the purchase of professional and scientific books in the War Department. That was authorized in 1895, and a recent report shows that the department since 1895 has purchased and has on hand over 10,000,000 books and pamphlets. Is there not a duplication of this purchase of books and pamphlets? Is that going on?

Col. MALONE. I am unable to answer that question. Our difficulty is that while we get lists of various scientific books, for example, in the files of the General Staff College in Washington, we can not get them; they will not send them; are are not available for us.

Mr. Sisson. Then, too, there is another department doing translating. You have an Army library in the city of Washington, and they ask for several translators there—nine, I think, altogether. They translate the books that they get from foreign countries bearing on military subjects, so that they can be used by people who want to use the Army library. So it seems to me an arrangement might be made so as to have your matter translated either in the Army library or in the other department the chairman spoke of.

Col. MALONE. As a matter of practice I have made several efforts to get things translated, and the only reply is that they would like to have me translate some things for them.

Mr. ANTHONY. Would it not be possible to have one central purchasing agent for these books and scientific pamphlets and for these translations?

Col. MALONE. I believe it would.

Mr. ANTHONY. Here in Washington, and have it centralized, and have the stuff distributed?

Col. MALONE. I believe it would be possible to have a central purchasing agency in Washington, but I do not believe you would get satisfactory results in translation. It would not do to have our translator in Washington because he would be doing work for the General Staff in the War Department to the disadvantage of all auxiliary institutions. Washington would get priority.

Mr. Sisson. I was not speaking about the General Staff; I was speaking about these men who take their own time in translating various authorities which the people use. They have some good translators here. I think nine, translating all the books on military subjects.

Col. MALONE. I have gone into the War College library many times trying to get matter translated, and have written about it. I can not read German myself at all. I have never been able to get the very thing I wanted.

Mr. Sisson. Have you been to the military library I speak of, which I believe is the largest military library in the world?

Col. MALONE. I have only been in the War College library.

Mr. SLEMP. Are you building up an independent library at Camp Benning?

Col. MALONE. We have a military library. These books are used there for study and research, for research on questions pertaining to tactics, which apply to our mission particularly. For example, we need books in reference to machine guns to answer the questions: What did they do in the World War; what can they do; what should they do; are they being built to accomplish their mission; and if they are not, why not, and what changes must be made? We must go into minute detail. The general service schools are interested in the broader aspects of the subject.

Mr. SLEMP. If I understand it correctly, you would have a series of textbooks on which to base your course of instruction?

Col. MALONE. We have nearly all the textbooks we need. We need very few books on which to base our course of instruction, but we need a great many books to inform us as to what is happening in the various armies of the world.

Mr. SLEMP. Would you want a number of sets of the same book?

Col. MALONE. Sometimes we do because we are going to investigate by groups in each class, investigation is a part of the course of instruction. We will need a large number of the same books sometimes so that each member of the group or class can have the same books with which to make the investigations.

Mr. Sisson. When those translations are completed do you have them made in book form or pamphlet form?

Col. MALONE. We have not gotten translators.

Mr. Sisson. Do you expect to have them made up in book or pamphlet form?

Col. MALONE. If the matter is sufficiently valuable to convert it into manifolded form, we would do that and turn it over to members of the class.

PRINTING ESTABLISHMENT.

Mr. Sisson. You would do it in your own printing establishment? Do you expect to have a printing establishment elaborate enough to do that?

Col. MALONE. Yes, we must have a printing establishment. We expect to have what we call a mailing list. We have received recently a great many requests from National Guard and Reserve officers asking for the matter we are teaching at Camp Benning, but we can not send it because we can not get it printed with our present plant.

Mr. Sisson. In line with the Chairman's suggestion about duplication, I have no idea of the number of printing establishments in the departments at Washington. I have no objection to your printing or doing this kind of work, but there ought to be some way of doing it without establishing independent printing establishments throughout the country.

Col. MALONE. We can not get it done any place else. The other plants are always overburdened.

USE OF BOOKS PURCHASED FOR CONTINGENCIES FOR THE WAR DEPARTMENT.

Gen. LORD. In connection with the statement about the purchase of books out of the appropriation for contingencies for the War Department, that appropriation is devoted, in that particular matter, to the purchase of books for the executive bureaus of the War Department and is not available for the purchase of books for use in the field. Later in the bill you will find a provision for purchase of books in the Surgeon General's office.

Mr. ANTHONY. It was rather startling to find that they have purchased over ten million books and pamphlets in the last 25 years.

Col. MALONE. Many of these become obsolete so rapidly that they are of no use. They are only junk. Practically every book written on military subjects before the war is obsolete. Practically every weapon with which the war was fought is obsolete in some detail.

Mr. ANTHONY. What do you propose to buy with the \$13,000 you are asking for the printing plant?

Col. MALONE. I have the details of that here. [Reading:]

INCIDENTAL EXPENSES INFANTRY SCHOOL.

Translators are a recognized necessity, and are necessary for the definite work of the Infantry School in studying translations of technical documents, periodicals, treaties on Infantry subjects and collection of up-to-date and invaluable data pertaining to modern Infantry uses as deduced from lessons of the past war. Such untranslated articles are being received, and unless this valuable information is properly translated it can not be put to its best use and purposes for advancement and progress can not be made unless trained translators are available.

Printing.—This plant does all of the school work and prints instructions, pamphlets and manuals received in job sheets, examination papers, orders and regulations, instructions, circulars, programs, blank forms, bulletins, memoranda, professional articles and data issued not only to the school, but to Infantry Officers National Guard and Reserve. (Note: This work is not done by the Public Printer for the reason that it must be done at the minute required, in other words, it must be "fresh." If printed by the Government Printing Office, work would be delayed, and not available at the psychological moment.)

This work is highly technical, and must be proof read by expert officers at the Infantry School. All work at the shop, however, receives the approval of the Congressional Joint Committee on Printing.

Photographic supplies.—Photographs are taken of all practical instruction to illustrate and record the methods and progress of the work, in pointing out defects in execution, and are used for purposes of instruction.

Photostatic copies of important professional papers must be made wherein a greater cost to the Government would result were same printed.

The photographic shop in connection with its work in the department of experiments executes all the photographic and photostatic, and blue-print work connected with the entire school and camp and associated organizations, in addition to the specific work required by the experimental department, in conducting tests for the information of the Infantry board and Infantry at large. In order to meet the requirements, equipment, supplies, and laboratory material must be adequate as this shop has had an average monthly output for the last three months of 450 photographs, 200 photostats, 12,000 feet of moving-picture film, many lantern slides, and 50,000 blue prints, and it is anticipated that an increase in the work will devolve upon it with the increase in the Infantry School, and with the increase in the demand upon the Infantry School for information and pamphlets upon military subjects, by Infantry Reserve and National Guard officers. The type of work called for varies from still to moving pictures, from individual to panoramic photographs in different sizes, and a great quantity of photostatic and blue printing. Many of the requirements of this shop are for articles which can not be obtained through the supply department without a great loss of time, and in many of the cases where the department could

supply same it will involve a transfer of funds, since the articles necessary are not regular articles of issue and are articles needed only at particular places such as the Infantry School.

Laboratory supplies.—Equipment and supplies of chemical and electrical laboratory, and class-room demonstrations and experiments as needed by the Infantry School in its instruction of Infantry officers, the equipment and supplies will have to be purchased from this fund. A metrological station is maintained at Camp Benning, and in connection with the ballistic range for small arms, many experiments will require special instruments for same.

Special equipment comprises special furniture, office and shops, blackboards, special machinery and apparatus, and the cost of installing same. In many cases this material, while obtained through other departments of the Government service, involves a transfer of funds to the department concerned, after obtaining same, since such articles are not regular issue articles. Items such as camp files, drawing boards, special instruments, sectionalized parts of machinery and motors for instruction must be obtained when necessity therefor exists.

Library.—The Infantry School is the center of Infantry activities, and the source from which must come Infantry doctrine and policies relative to not only the handling of the Infantry troops, but to a large extent other combat activities of other arms pertaining to Infantry, and it is most essential that a complete technical and tactical library be maintained for reference, and to afford opportunities for study by the student officers and instructors at the Infantry School. In this library textbooks, reference books, and the best military periodicals must be available. The library at present is small, and while containing many valuable military works, it is not sufficiently large or comprehensive in its equipment to afford the opportunities which must necessarily be afforded at the source of knowledge where are assembled student officers from the Infantry of the Regular Army, National Guard, and the Reserve. In addition to procuring, collecting, cataloging, etc., of the books now on hand many of these books must be rebound and classified in order that the knowledge and information contained therein will be readily available for use.

Miscellaneous fund is necessary for unforeseen and emergency expenses, such as the employment of special technical services for special occasions. Instances of such employment and where the Infantry School will be required to pay the expenses thereof, would be in cases of experiments of any kind with Infantry property or equipment where experts from such departments as the Bureau of Standards and Weights would be called upon to visit Benning and give expert opinion during experiments and tests of equipment or supplies wherein such knowledge would be necessary for a proper test.

MACHINERY FOR PRINTING PLANT.

Mr. ANTHONY. You have no figures showing what pieces of machinery you propose to buy to equip the plant.

Col. MALONE. There is one new printing press, and there is also an item for printing supplies.

Mr. CRAMTON. What kind of a printing press is that?

Col. MALONE. The estimate calls for one linotype machine.

Mr. CRAMTON. What kind of a printing press are they estimating for?

Col. MALONE. There is also an item for spare parts and repairs.

Mr. CRAMTON. The first item you read, I believe, was for a printing press.

Col. MALONE. The item is a linotype machine for the print shop.

Mr. ANTHONY. You intend to put in a complete printing and binding plant?

Col. MALONE. Yes; that is needed to do the work which we can not get done elsewhere. We have made a great effort to get a linotype machine without requesting permission to buy one. We spent eight months trying to get it.

Mr. ANTHONY. Has not the Government any surplus linotype machines on hand?

Col. MALONE. None that are fit for service.

Mr. ANTHONY. They bought a number for use at the big army camps?

Col. MALONE. Yes, sir.

Mr. ANTHONY. What has become of them?

Col. MALONE. The principal part of the plant used in France is at Camp Humphreys and has been installed there and is in use by the Engineers. We tried to get one of those machines, but we failed.

Mr. ANTHONY. How many have they there?

Col. MALONE. I could not answer that.

Mr. ANTHONY. Would it not be well to inquire in order to find out if there are any machines available?

Col. MALONE. There are none available there. Every effort has been made to get a machine which would be serviceable, and we failed to locate any in the whole Army.

Mr. ANTHONY. Will you make inquiry about it in order to find out whether there are any linotypes which were purchased during the war and which are not now in use which would be accessible for your use?

Col. MALONE. I will. [Investigation discloses none in the War Department.]

Mr. Sisson. In connection with this Infantry School at Camp Benning, what other item of expense is covered by other appropriations for this school? I am trying to find out what it will cost the Government to run this school; I am trying to separate it from the other items.

Col. MALONE. There will be a certain portion of the appropriation for barracks and quarters, for the upkeep, etc., which will be allotted to us when the appropriation bill is ultimately passed.

Mr. Sisson. How much will that probably be?

Col. MALONE. I have no idea.

Mr. Sisson. Will you find out and put it in the record?

Col. MALONE. That depends upon what is allowed for in the general appropriation.

Mr. ANTHONY. It depends upon the amount appropriated?

Col. MALONE. Yes.

Mr. Sisson. Still there ought to be some way by which we might know when we are appropriating money how much this unit is going to cost us. I want to know, for example, what the Benning school is going to cost. We are entitled to get some idea about it.

Mr. ANTHONY. I think the quartermaster general will be able to give us those figures.

Gen. LORD. Of the \$1,000,000 appropriated in the act of June 5, 1920, there was on hand yesterday \$5,000 unobligated.

Mr. ANTHONY. So it has practically all been expended.

WEDNESDAY, DECEMBER 15, 1920.

STATEMENT OF MAJ. GEN. W. A. HOLBROOK, CHIEF OF CAVALRY.

CAVALRY SCHOOL, FORT RILEY, KANS.

REDUCTION IN ORIGINAL ESTIMATE.

Gen. LORD. Mr. Chairman, for the purpose of clearing the record, let me say the original estimate submitted by the Chief of Cavalry for the school at Fort Riley was \$29,085. It was reduced by the board appointed by the Secretary of War to the amount that appears in the bill, \$17,125. The procedure adopted by the board was to ask bureau chiefs to submit their estimates separated as to what was absolutely necessary, what was important, and what was desirable, the plan being that in making the cut those projects that were not absolutely necessary would be eliminated. But I understand in some cases they also made reductions below the amount classified as necessary.

Mr. ANTHONY. General, how much was the original estimate for the Cavalry school at Fort Riley?

Gen. HOLBROOK. The original estimate was \$29,085. I would like to explain, Mr. Chairman, that this estimate was a reduction to 60 per cent of that submitted by the head of the department. The commandant of the Cavalry school, desiring to keep the expenses down, made this cut. Another cut to 60 per cent of that amount has been made, leaving the present estimate \$17,125.

Mr. ANTHONY. What do you propose to do with that amount of money?

Gen. HOLBROOK. We have it itemized under the head of wages, equipment, material, machinery and repairs, stationery, furniture, printing and binding, library, photographic and laboratory supplies, telegraph and telephone, and miscellaneous.

Mr. ANTHONY. What did the school cost last year?

Gen. HOLBROOK. It cost last year \$14,960.

NUMBER OF STUDENTS.

Mr. ANTHONY. How many students did you have last year?

Gen. HOLBROOK. We had approximately 60.

Mr. ANTHONY. How many will you have during the next fiscal year?

Gen. HOLBROOK. About 200, all told.

Mr. ANTHONY. As I understand it, the entire reservation at Fort Riley, consisting of how many acres—

Gen. HOLBROOK. About 19,000 acres—something more than that.

Mr. ANTHONY (continuing). Has been assigned primarily for the use of this institution.

Gen. HOLBROOK. I understand so.

ACTIVITIES.

Mr. ANTHONY. What will be the activities embraced there during the year?

Gen. HOLBROOK. During the year we have four classes undergoing instruction, the basic class, and during the present year and for several years to come we expect this class to be composed of about 150 members; the troop commanders class of approximately two officers to each Cavalry regiment, and the field officers' class, with as many as we can spare, possibly 30, and then a class of National Guard and reserve officers. We have one such class there now, or have had up to this time. At the end of the year we hope to have some maneuvers for the training of these various classes by marching in additional troops from Des Moines and Russell following this plan, until the Government sees fit to make permanent construction at the post, when it is hoped that it will become a reinforced brigade post.

Mr. ANTHONY. Did the Cavalry get its proportionate share of the new officers who came in under the reorganization act?

Gen. HOLBROOK. I believe we did.

Mr. ANTHONY. So you have that number of new officers to train also?

Gen. HOLBROOK. A great many of them, the second lieutenants and practically all of the first lieutenants and a great many of the troop commanders are lacking in Cavalry training.

Mr. ANTHONY. Are you training officers in the grade of lieutenant at this school?

Gen. HOLBROOK. Yes.

Mr. ANTHONY. Have all your lieutenants that you will get from the new Army bill been appointed?

Gen. HOLBROOK. Not entirely; we have but a few second lieutenants. All the vacancies in the grade of first lieutenant have been filled. We will furnish the basic course. It is planned to put all the new men through the Cavalry school, even the West Point graduates.

Mr. ANTHONY. This will then be a basic school for the Cavalry, the same as the other basic schools for the other arms of the service?

Gen. HOLBROOK. Yes, sir.

Mr. ANTHONY. If you have anything else to submit to the committee we will be glad to hear it.

CHANGE IN CHARACTER OF COURSES.

Gen. HOLBROOK. In addition to the increase in numbers of students the character of the course has been very much changed in order to make it a cavalry school as well as a school of equitation. That accounts in some degree for the increase asked for stationery and mimeographing, which makes up a considerable part of this expense.

Mr. SLEMP. Is this a new item in the Army appropriation bill?

Gen. HOLBROOK. No, sir.

Mr. ANTHONY. For the information of the subcommittee I may say that last year we appropriated a lump sum for the service schools amounting to \$100,000, and this year the items are segregated for the different schools. As the General explained, he is asking for about \$3,000 more than he had last year. Is that not correct?

Gen. HOLBROOK. Considerably less than that; about \$2,200 more.

Mr. ANTHONY. This has been an old cavalry school?

Gen. HOLBROOK. It has been a mounted service school for many years. During the last two years it has been more particularly a cavalry school.

SALVAGE OF CAMP FUNSTON.

Mr. ANTHONY. Camp Funston is located on this reservation and is one of the big Army camps built during the war.

Gen. HOLBROOK. Yes, sir.

Mr. ANTHONY. What use will you make of those buildings which are there now?

Gen. HOLBROOK. Those buildings have been ordered salvaged, with the exception of such as may be reserved for the school, so when we are able to station additional troops there we may retain a sufficient number of those buildings to complete the housing for one reinforced brigade, which would mean the addition of a Cavalry regiment, some horse artillery, signal troops, mounted engineers, and a few others.

Mr. ANTHONY. Gen. Holbrook, the argument for the increase you ask for the cavalry school is based upon the same reasons given for the increases for the other schools, and that is because of the large number of officers you intend to train there during the next fiscal year, due to the increase in the size of the Army?

Gen. HOLBROOK. Yes, sir.

Mr. ANTHONY. And especially the need of training for the newly appointed officers?

Gen. HOLBROOK. Yes; and the change in the scope of the school, making it a Cavalry school.

BASIS OF THE NUMBER OF STUDENTS.

Mr. SLEMP. Is the number of students at this school based upon an army of 283,000 men?

Gen. HOLBROOK. At present it is based upon the capacity of the school, because we have so many men who should go through this school before we consider them fitted for the duties with troops that we are working it to capacity.

Mr. SLEMP. Would that be true independently of whether the Army was 175,000 or 283,000?

Gen. HOLBROOK. Yes, sir. We will make use of the capacity of the school for several years to put these young men through that course.

Mr. ANTHONY. You intend to expand this year from 60 to 200 officers?

Gen. HOLBROOK. We have already done so. We have 141 in the basic class. We also expect to have a 'field officers' class.

Mr. ANTHONY. For several years to come will there be a necessity for the use of this school to capacity, if you intend to give the new officers the training they ought to have?

Gen. HOLBROOK. Yes, sir; there will be.

Mr. SLEMP. Have you any other Cavalry school?

Gen. HOLBROOK. No, sir; this is the only Cavalry school we have in the service.

Mr. ANTHONY. I have been handed a slip showing how the \$100,000 appropriated last year was divided. It gave the Fort Leavenworth schools \$20,130; the Cavalry school, \$14,950; the Field Artillery school at Fort Sill and Camp Knox, \$12,010 and \$9,606, respectively;

and the school at Camp Benning, Ga., \$36,900, leaving as held in reserve at this date \$6,340. The \$6,340 is unexpended.

Gen. HOLBROOK. It has not been apportioned.

Gen. LORD. That is held for use at any one of these schools.

FIELD ARTILLERY SCHOOLS.

STATEMENT OF MAJ. T. D. SLOAN, OFFICE OF CHIEF OF FIELD ARTILLERY.

LOCATION OF SCHOOLS.

Mr. ANTHONY. Major, you are connected with the office of Chief of Field Artillery.

Maj. SLOAN. I am on his staff, sir.

Mr. ANTHONY. I believe the item on page 9 for the field artillery schools covers your activities at Fort Sill, Okla., Camp Knox, Ky., and Camp Bragg, N. C.?

Maj. SLOAN. Yes, sir; our schools are located at three stations.

Mr. ANTHONY. They are basic schools for the Field Artillery, all of them?

Maj. SLOAN. We have a basic school at Camp Knox, Ky., a battery officers' school and various courses for specialists at Fort Sill and we are now organizing a field officers' school at Camp Bragg, N. C.

Mr. ANTHONY. How much money did you have last year for carrying on these activities?

Maj. SLOAN. Our allotment for these activities last year was \$21,670.

Mr. ANTHONY. You are asking for approximately \$25,000 additional this year?

Maj. SLOAN. Yes, sir; we are asking for practically that amount in addition this year.

SPECIAL AND TECHNICAL EMPLOYEES.

Mr. ANTHONY. What is the reason for that increase?

Maj. SLOAN. There are three reasons for it. We have organized during the past year at Fort Sill a large division of enlisted specialists for training enlisted men of the Field Artillery. We have developed there a school for these enlisted specialists of the highest class—the technical enlisted men that we need—with a capacity of 1,070 every year. That is one reason for the increase of the amount asked for this item.

Another reason is that for these courses we find it necessary to employ a few civilian instructors. We are unable to find experts of high enough grade in the service to take charge of the motor mechanic's course, the horseshoeing course, and the instruction in stenographic work and drafting. We are asking for three instructors at a total salary of \$6,300. This is a new item.

Mr. ANTHONY. Now, Major, you have three large artillery centers in the country.

Maj. SLOAN. We have three artillery centers; yes, sir.

Mr. ANTHONY. With large firing fields?

Maj. SLOAN. Yes, sir.

Mr. ANTHONY. Do you find that it is a necessity to continue the three artillery centers?

Maj. SLOAN. I can speak only from the school standpoint and say that it is necessary for the proper conduct of school work.

Mr. ANTHONY. Why could you not put your field officers' school which you propose at Camp Bragg at one of these other places?

Maj. SLOAN. I believe it would be possible to do so, but our main object in having three schools is to maintain and develop a plan that will be useful in time of war. Our basic school which was formerly located at Camp Taylor and has now been moved 25 miles to Camp Knox is an outgrowth of the old central officers' training school where we trained our candidates for commissions during the war. Our battery officers' school at Fort Sill is an outgrowth of the old school there which we expanded in war time to a capacity of 10,000 officers per year to train battery commanders. We wish to maintain a nucleus for the schools we will need at the outbreak of war. Complete working plans and instruction schedules are on file and available for putting our schools on a war basis. All that would be necessary would be to issue the necessary orders. This would be impossible if the schools were combined.

Mr. Sisson. Which is the most expensive of the three sites? Where is the most important, at Fort Sill, Camp Bragg, or Camp Knox?

Maj. SLOAN. Fort Sill is a completed project. It is a smaller reservation than the others.

Mr. Sisson. How many acres have you in that reservation?

Maj. SLOAN. Approximately 50,000.

Mr. Sisson. Is there any land accessible so if you needed more you could get it at a reasonable expense?

Maj. SLOAN. It is rather difficult to answer because there is oil country near the reservation.

Mr. ANTHONY. These are all very large reservations, are they not?

Maj. SLOAN. Yes, sir; very large.

Mr. Sisson. Which would be the most valuable if you were to scrap a plant and put it on the market, Camp Bragg?

Maj. SLOAN. I am unable to say. Training is my part of the work.

Mr. ANTHONY. You can simply give us information about the work of the school?

Maj. SLOAN. Yes, sir.

NUMBER OF STUDENTS.

Mr. ANTHONY. What number of students have you at the present time at these schools?

Maj. SLOAN. During the past year we had——

Mr. ANTHONY (interposing). By that you mean the present fiscal year?

Maj. SLOAN. The present fiscal year; yes. Our courses were on a different basis from the others. We graduated a class on December 4. Last year our schools did not work to capacity. We graduated approximately 140 officers of the Regular service and about 500 enlisted specialists. We also had one course with about 40 officers of the National Guard at Fort Sill.

Mr. ANTHONY. How many officers do you intend to have this year?

Maj. SLOAN. We intend to have this year at Fort Sill, Okla., 380 officers, and at Camp Knox, Ky., 106 officers.

Mr. ANTHONY. Are these all Regular officers?

Maj. SLOAN. Yes, sir; Regular officers, except for about 80 National Guard.

FEASIBILITY OF CONSOLIDATING ALL ARMY SCHOOLS.

Mr. CRAMTON. Will you explain why, since in war the Artillery does not have a war of its own, or the Infantry a war of its own, or the Cavalry a war of its own, why is it not feasible to have these schools located together on one reservation of, say, 100,000 acres?

Maj. SLOAN. I can only answer that by saying that we find it necessary with these junior officers to specialize very strictly. There is so much for them to learn that we want to give them special training courses.

Mr. CRAMTON. I understand that training must be specialized, but since in war the different branches must be affiliated, why is it not desirable that the training should be secured in one location where they would be in contact?

Maj. SLOAN. I think first they must get the basic work of their arm. After that the officers are trained by officers of other arms in the general service schools, and the troops are all together in divisions in the cantonments.

Mr. CRAMTON. Would it not be feasible for training in your branch of Artillery to specialize men in a school for Artillery located at Camp Benning?

Maj. SLOAN. I think the Artillery work has to be by itself. We do so much firing and so much long-range work that there would be constant interference with the training of troops of other arms. When the Infantry School was located at Fort Sill we found on that reservation that there was not enough room for us to conduct proper Artillery fire without interfering with the Infantry instruction.

Mr. CRAMTON. That was one-half the size of Camp Benning?

Maj. SLOAN. It was one-half the size, but our schools are now larger, and we have to do more firing. Whereas we used to have two or three firing batteries on the range in the old days, now we have six or seven batteries firing from different positions.

Mr. CRAMTON. There would be nothing gained then by having the Infantry trained in conjunction with the Artillery?

Maj. SLOAN. There would undoubtedly be something gained if it was practicable to do it. But there are a great many disadvantages that offset whatever advantages might be gained.

Mr. ANTHONY. Will you tell us how many students you intend to have at these three places during the next fiscal year?

Maj. SLOAN. I believe I stated we expected to have 318 officers at Fort Sill.

Mr. SLEMP. Have you put in the record your reason for having three different schools?

Maj. SLOAN. I think it is in the record, but there are several other reasons which I did not state for having these schools in separate places. I stated we would like to have them that way as a nucleus for our war organizations. In addition there are immediate reasons. There is an existing plant at Fort Sill which is now sufficient and no more for the number of officers and enlisted specialists we wish to train every year there in peace time, and Camp Knox and Camp Bragg are so located geographically that it makes a short

distance for the National Guard officers to be sent, and it makes a low mileage for the Regular officers sent to these schools. They are centrally located, not only geographically, but in relation to railroad facilities.

In addition, Camp Bragg has tactical facilities which do not exist in any of our other reservations.

Mr. SLEMP. I understand you have only one place for the Infantry, but you have three places for the Field Artillery, when you would not have the same number of officers in the Field Artillery as you have for the Infantry.

Maj. SLOAN. Not as many.

Mr. SLEMP. It seems to me you have a disproportionate number of schools for the number of men to be trained.

Maj. SLOAN. The reservations at which these schools are located are maintained as Artillery training centers and they are needed for other kinds of Artillery work beside that of the schools.

Mr. SLEMP. Suppose you only had one Artillery center. Could you not get along with one Field Artillery school?

Maj. SLOAN. In peace time we could locate our schools at one place, that is possible; but we would not be able to prepare for expansion in time of war, and it would necessitate the construction of suitable quarters and accommodations.

Mr. SLEMP. You would have the development of that one school and you would have your officers in proportion to the number you have in the Army, just as they have in the Infantry?

Maj. SLOAN. We could get along very well with one school in time of peace, but we would have to ask for more money for quarters and barracks and other purposes, to establish the school. We now have plants available at these places. The Fort Sill plant is prewar, most of it. Part of it was built during the war so that we could give suitable instructions. The other schools are using the cantonment quarters at Camp Knox and at Camp Bragg. We have asked for no money for Fort Sill and very little at the other places, but if we consolidated we would have to ask for new construction, and I doubt if the amount which would have to be spent would compare with the difference in cost of maintenance.

FORT SILL.

Mr. SLEMP. Before the war, how many schools did you have?

Maj. SLOAN. One school.

Mr. SLEMP. Where was it located?

Maj. SLOAN. That was located at Fort Sill.

Mr. SLEMP. Did you add to the quarters and facilities at Fort Sill during the war?

Maj. SLOAN. At Fort Sill we added sufficient facilities to give us an annual capacity of 10,000 officers in an intensive war course.

Mr. SLEMP. How many could you train at Fort Sill now with that capacity.

Maj. SLOAN. We could train at Fort Sill 10,000 officers in a war course; that is a ten-week course. We could do that by passing them through and graduating them, 200 each week. We can now accommodate there, with existing quarters, the number I previously stated. Three hundred and twenty officers at one time can be accommodated

in the quarters existing by housing some of them in temporary buildings or in barracks.

Mr. ANTHONY. As a matter of fact these were two additional fields increased because of the fact that the Government already had large areas of ground there and because of the necessity for the Artillery to have immense areas to fire on; and the further argument was made at the time that if we intended to train all the National Guard officers in actual field artillery practice these areas would be needed to accommodate that force.

Maj. SLOAN. The National Guard field artillery from the east went to Camp Bragg last year and the Reserve Officers Training Corps field artillery was at Camp Knox.

PRINTING PLANTS.

Mr. ANTHONY. Are there any other exceptional items of expense you desire to explain to us? Are you asking for a big printing plant as the other school is?

Maj. SLOAN. Our plants are established.

Mr. CRAMTON. Will you state what you have in your printing plant?

Maj. SLOAN. We have a plant at Fort Sill which is worth approximately \$10,000. This plant was built up during the war. We have not added to it, but when the Congressional Joint Committee on Printing reduced the number of plants, we took over the salvage plant which was operating there, which added slightly to our equipment. We have even declared some surplus, which has been turned into Washington. There is also a plant of about the same size at Camp Knox performing similar work for the school and camp.

Mr. ANTHONY. What kind of material?

Maj. SLOAN. Printing material, such as hand presses, and so forth. The principal item that we print at Fort Sill is an instruction bulletin, furnished to all the officers of the National Guard and the Reserve officers. We get out an edition of 9,500 copies of this pamphlet each month. That was approved by the Congressional Joint Committee on Printing and has been of a great deal of value to the Reserve officers and the National Guard officers. They express their appreciation of the information they get in this bulletin. The other items are as stated by Col. Malone for the infantry school and include instruction pamphlets, school regulations, and other small printed matter which, when it is needed, is needed in a hurry.

MISCELLANEOUS EXPENSES.

Mr. CRAMTON. I notice in last year's account there was something like \$900 for miscellaneous expenditures, whereas in this estimate here it is over \$12,000. Can you give us any information about the \$12,000?

Maj. SLOAN. In 1920 we reorganized the school at Fort Sill, and started to add specialist courses which needed special equipment. We also increased the length of the courses and the scope of instruction, which made it necessary, for instance, in the officers' course to put in an electrical laboratory, and a motor demonstration shop where we maintain sectionalized parts of motors, and so forth, also a photographic and chemical laboratory in addition. We found that

THURSDAY, DECEMBER 16, 1920.

FIELD ARTILLERY ACTIVITIES.

STATEMENT OF MAJ. T. D. SLOAN, OFFICE OF CHIEF OF FIELD ARTILLERY.

Mr. ANTHONY. You are asking for \$6,000 for field artillery activities. Why should not that be consolidated with the item on the previous page for the conduct of the schools at these three posts?

Maj. SLOAN. The schools are located at the three stations mentioned, because those are the most suitable places for the schools. The reservations are not maintained primarily for school purposes. The main object of the reservations at Camp Knox and Camp Bragg is to furnish suitable training areas and target ranges for training artillery, and such ranges for long-range artillery do not exist elsewhere in the country. They are also designed for training the Field Artillery of the National Guard and Organized Reserve and for artillery maneuvers on a large scale. Their size and location in regard to the center of population of the country and transportation routes make them especially suitable as artillery centers. Much of the artillery is not an organic part of any division and some regiments, also, are located at division stations where no suitable ranges exist. These must be accommodated at other than divisional camps. Camp Knox, Camp Bragg, and Fort Sill are maintained for this purpose.

MAINTENANCE AND IMPROVEMENT OF RANGES.

Part of this estimate is for funds for the maintenance and improvement of the ranges at these two stations.

Mr. ANTHONY. Of the artillery ranges themselves?

Maj. SLOAN. Of the artillery ranges themselves, with necessary instruments for firing instruction. Funds are needed to put them in condition for target practice.

TUITION OF OFFICERS DETAILED AS STUDENTS AT CIVIL INSTITUTIONS.

Mr. ANTHONY. You say for the tuition of officers, officers detailed as students. What officers do you want to send to such institutions?

Maj. SLOAN. We have sent to civilian institutions during the last two years certain officers who possessed special qualifications along various mechanical lines, with a view to developing experts to act as instructors in our schools. We have sent three officers to the Massachusetts Institute of Technology to take courses in motors and two to the University of Chicago.

Mr. ANTHONY. That is under the authority given in the reorganization act?

Maj. SLOAN. That is under the authority given in the reorganization act.

Mr. ANTHONY. But you require an express appropriation in order to do that?

Maj. SLOAN. We require an express appropriation to provide for it.

Mr. ANTHONY. Do you pay any additional expenses for the officer while he is at school, in addition to his salary?

Maj. SLOAN. No, sir; it covers his tuition, laboratory fees, and such other supplies that he may need. This amounts, on the average, to about \$225 for each man.

Mr. SLEMP. What did you spend the \$6,000 for last year?

Maj. SLOAN. It has not been all spent. There was spent this year \$535 on the tuition of officers. We were so hard put to it to maintain our activities and do our part in demobilization and reorganization, with our small number of officers that we could not spare all the men we wanted to send, and were able to detail but two this year.

I believe we also got material for the construction of a range tower at Camp Knox. We also got 6 ballistic rulers for use on the target range at Fort Sill.

Mr. SLEMP. What did those two items cost?

Maj. SLOAN. I have not the exact figures on the rulers, but I think they cost about \$12 each. They are long metal rulers.

EXPENSE OF TARGET RANGE.

Mr. SLEMP. How much did you spend at the target range?

Maj. SLOAN. I have not the exact figures on that. The allotment was \$1,500 for all purposes at Camp Knox.

Mr. SLEMP. Then you have an unexpended balance of about \$3,000?

Maj. SLOAN. Yes, sir. More than that.

Mr. SLEMP. Do you propose spending that \$3,000 between now and the 30th of June?

Maj. SLOAN. We were hampered in our work on the range at Camp Bragg because we had a very small garrison there, and the officer detailed to establish and work out the plans for the school and firing center had not been sent there. Col. A. J. Bowley has just been sent to Camp Bragg and he has already notified us that he wants not only the \$1,500 already allotted but also part of that which we have informally allotted to the other camps. He considers this necessary for the purpose of fixing the range at Camp Bragg so it can be used next summer.

Mr. SLEMP. And you think that will absorb the \$6,000 between now and the end of the fiscal year?

Maj. SLOAN. Yes, sir.

Mr. SLEMP. What do you propose to do with the \$6,000 next year?

Maj. SLOAN. We will use about \$1,500 for the tuition of officers.

Mr. SLEMP. That will take care of about seven.

Maj. SLOAN. That will take care of six or seven, which is all we can spare.

Mr. SLEMP. Where do you send them?

Maj. SLOAN. We have been sending them to the Massachusetts Institute of Technology and the University of Chicago.

Mr. SLEMP. They study the higher branches of engineering?

Maj. SLOAN. They take a course in motor engineering at the Massachusetts Institute of Technology and a course in ballistics in the University of Chicago.

Mr. SLEMP. How are the rest of their expenses paid there?

Maj. SLOAN. Their expenses are covered by the appropriation for the pay of the Army.

Mr. SLEMP. They get their salaries?

Maj. SLOAN. Yes, sir.

Mr. SLEMP. And commutation of quarters and heat and light?

Maj. SLOAN. Yes, sir; just the same as they would get anywhere.

Mr. SLEMP. What is the balance to be used for?

Maj. SLOAN. The other \$4,500 is for the maintenance and improvement of the ranges at the three stations named.

FRIDAY, DECEMBER 17, 1920.

THE ADJUTANT GENERAL'S DEPARTMENT.

STATEMENT OF GEN. P. C. HARRIS.

CONTINGENCIES, HEADQUARTERS OF MILITARY DEPARTMENTS, ETC.

Gen. HARRIS. Under The Adjutant General's Department, contingencies, headquarters of military departments, etc., the appropriation for the current fiscal year is \$9,000. We are asking for an increase of \$2,000 to take care of the headquarters of corps areas. We have nine corps areas in the States where we had only six departments a short time ago. We also have troops in Germany.

Mr. ANTHONY. At each one of those nine corps areas you maintain a representative of your office? He is the adjutant general of that department?

Gen. HARRIS. He is the adjutant of the corps areas.

Mr. ANTHONY. And this appropriation takes care of the expenses of his office?

Gen. HARRIS. Five hundred dollars for each corps area.

PURCHASE OF FURNITURE, STATIONERY, ETC.

Mr. ANTHONY. On account of the increase of the organizations you need \$2,000 additional?

Gen. HARRIS. Two thousand dollars additional.

Mr. Sisson. If I understand you, you just pay him that arbitrary amount?

Gen. HARRIS. It is allotted to him for certain purposes.

Mr. Sisson. Does the law provide for that or do you make the allotment?

Gen. HARRIS. It provides in the law itself, "For the purchase of the necessary articles of office, toilet and desk furniture, stationery, ice and potable water for office use when necessary, binding, maps, technical books of reference, professional and technical newspapers and periodicals, payment for which may be made in advance, and police utensils."

Mr. Sisson. How much?

Gen. HARRIS. \$500.

Mr. Sisson. Is that vouchered, or do you just turn over the \$500?

Gen. HARRIS. We allot him that much money. That is paid for on separate vouchers.

Mr. Sisson. Is that the law you just read?

Gen. HARRIS. Yes.

Mr. Sisson. Then whether he spends it or not he gets \$500?

Gen. HARRIS. I allot him \$500 and he spends what is necessary.

Mr. ANTHONY. You do not give to him \$500, turn it over to his office and then approve the expense. It is a vouchered account?

Gen. HARRIS. Yes.

Mr. SLEMP. What is your statement now as to the \$9,000 for 1921?

Gen. HARRIS. We have allotted \$7,450 to the different departments and corps areas headquarters and we had an unallotted balance in September of \$1,550. That takes care of the emergencies that come up during the year. We rarely expend all of it.

Mr. SLEMP. In other words this whole \$11,000, or \$9,000 that you have had, will be spent on vouchers approved in the regular order in the Army?

Gen. HARRIS. Yes.

Mr. ANTHONY. The words, "corps areas" are put in to harmonize with the new reorganization?

Gen. HARRIS. Yes, sir.

ENLISTMENTS.

Mr. ANTHONY. If there are no other questions on this item, while you are here we would like to ask a question about army recruiting?

Gen. HARRIS. Certainly.

Mr. ANTHONY. You are getting all the recruits you want now, General?

Gen. HARRIS. We are enlisting about a thousand a day.

Mr. ANTHONY. A thousand a day?

Gen. HARRIS. That is working days.

Mr. ANTHONY. And they are coming more freely now than at any time during recent years?

Gen. HARRIS. It is unprecedented.

Mr. ANTHONY. Do you attribute that to the publicity or to unemployment?

Gen. HARRIS. I attribute that to the efficiency of our organization and our methods.

Mr. ANTHONY. And not to the fact that there are hundreds of thousands of men out of employment?

Gen. HARRIS. Undoubtedly that has a very large effect.

YEARLY COST OF EACH SOLDIER.

Mr. ANTHONY. What is the equivalent in dollars and cents that the Government gives a man for one year's service?

Gen. HARRIS. I think Gen. Lord has that.

Mr. ANTHONY. With his pay, clothing, subsistence, medical care, and all that, in civilian life what would that be equivalent to?

Gen. LORD. That is a rather difficult question to answer. It varies from \$1,600 to \$1,800, including expenses.

Mr. ANTHONY. So that the Army to-day is rather an attractive proposition to the average man who is out of employment?

Gen. HARRIS. It is.

Mr. SLEMP. I do not quite follow that. Of course, if you will take the \$600,000,000 and apply that as against the 280,000 men, you would get the expenditure per man by the Government of \$2,100, that is, it costs the Government that. But that includes all

the overhead and everything. When you apply this to the individual himself he gets \$30. Take a private, he gets \$30 a month, does he not?

Gen. HARRIS. Yes.

Mr. SLEMP. Now, then, does he get his uniform?

Gen. HARRIS. His uniform in addition to that.

Mr. SLEMP. What does that cost?

Gen. HARRIS. I think Gen. Lord has that.

Mr. ANTHONY. I think Gen. Lord has given the total cost to the Government of the men. I mean what equivalent in money which the man gets a year, what the value to the man is of his pay, his clothing, his subsistence, medical care, and all that what the job is worth to the man.

Gen. LORD. On page 135 in the Book of Estimates, as prepared for the use of the committee there is a list of per capita worked out according to the average enlisted strength from 1909 to 1920. That is what it cost the Government. Computed on the basis of actual expenditures from the appropriations for the average number of men for each year is the only basis on which we can give anything of value.

Mr. ANTHONY. It will be interesting if you can put into the record, not in elaborate detail, but roughly what a man gets from the Government in his year's service in money and clothing, the value of his board and keep, and medical care, and all that, comparing the job with what he would get elsewhere.

Gen. LORD. We have had estimates made by the General Staff College, and estimates made in our office which vary widely. We will put something in, and the method of arriving at the result.

NOTE.—The following statement shows the monthly pay of an enlisted man and the approximate value of his allowances, the amounts shown for the latter being the estimated cost of same to persons in civil life.

The statement applies only to men originally entering the service, and does not include such items as additional pay for length of service, rating of specialists, qualification in marksmanship and gunnery, and value of the retirement privilege; nor does it include other items which are not available or taken advantage of by all enlisted men such as the 20 per cent increase for foreign service, savings earned by making purchases at the commissary, and furlough with pay and rations.

In effect, therefore, this is an estimate of the minimum benefits.

Item of pay and allowances.	Private.	Private, first class.	Corporal.	Sergeant.	Staff sergeant.	First or technical sergeant.	Master sergeant.
Percentage authorized.....	51.6	25.0	9.5	9.5	2.0	1.8	
Base pay.....	\$30.00	\$35.00	\$37.00	\$45.00	\$45.00	\$53.00	\$74.00
Temporary increase to June 30, 1922.....			7.40	9.00	9.00	10.00	14.00
Board.....	35.00	35.00	35.00	35.00	35.00	35.00	35.00
Additional ration.....					16.00	16.00	
Lodging.....	12.00	12.00	12.00	12.00	35.00	35.00	
Free laundry.....	3.00	3.00	3.00	3.00	3.00	3.00	
Clothing.....	12.00	12.00	12.00	12.00	12.00	12.00	12.00
Medical and dental treatment..	2.00	2.00	2.00	2.00	2.00	2.00	
Total.....	94.00	99.00	104.40	114.00	157.00	168.00	191.00

Mr. ANTHONY. I ask this because there is a feeling that the man is offered pretty good inducements to enlist.

Mr. Sisson. In other words, his light, heat, laundry, medical bills, drug bill, clothing, food and so on.

Gen. HARRIS. In addition to his pay?

Mr. Sisson. Yes, in addition to his pay.

Mr. ANTHONY. And his schooling.

Maj. SMITH. Some estimates were made along that line about a year ago based on the old rates of pay.

Mr. SLEMP. Your proposition of \$1,600 to \$1,800 per annum, that is not quite correct.

Gen. LORD. I was taking it as an average.

Mr. SLEMP. Your estimate for this year was over \$600,000,000 and the number of men, including officers, was 280,000. You divide \$600,000,000 by 280,000 and you get \$2,100 or \$2,200 as the cost per man as estimated for next year.

Mr. Sisson. That includes officers.

Gen. LORD. I think the total amount includes a large amount of matériel that you could hardly charge as against the men.

RECRUITING TOTALS BY MONTHS.

Mr. CRAMTON. Gen. Harris, could you give us the recruiting totals for 1920 by months?

Gen. HARRIS. I have not them here. I will be glad to insert them in the records.

Mr. ANTHONY. It would be interesting.

Mr. CRAMTON. The General's opinion is that it is chiefly due to the efficiency of the organization. I would be glad to see the figures of different months under different economic conditions.

Statement showing one and three year enlistments, by months, from Jan. 1, 1920, through Nov. 30, 1920.

	1 year.	3 years.	Total.		1 year.	3 years.	Total.
January, 1920.....	3,398	6,318	9,716	August, 1920.....	6,457	10,471	16,928
February, 1920.....	1,664	7,335	8,999	September, 1920.....	5,093	9,108	14,201
March, 1920.....	4,186	6,284	10,470	October, 1920.....	5,185	10,875	16,060
April, 1920.....	3,451	3,931	7,382	November, 1920 ¹	7,432	12,914	20,346
May, 1920.....	4,033	3,997	8,030				
June, 1920.....	4,595	6,526	11,121	Total.....	31,690	86,677	138,367
July, 1920.....	6,196	8,919	15,114				

¹Telegraphic reports of enlistments are given for November and are subject to change upon receipt of complete mail reports.

Mr. Sisson. How many recruits are you losing whose enlistments expire and who do not reenlist?

Gen. HARRIS. I should say we are losing now about 7,000 on the average.

Mr. Sisson. A year?

Gen. HARRIS. A month.

Mr. ANTHONY. General, what proportion of your total number of enlisted men are one-year men?

Gen. HARRIS. About 40 per cent one year and 60 per cent three-year men.

Mr. ANTHONY. Do you find that the men like the one-year enlistment—the average?

Gen. HARRIS. If it were not for the bonus there would be no enlistments for three years.

Mr. ANTHONY. The Army prefers them for three years?

Gen. HARRIS. Very much.

Mr. ANTHONY. Are you trying to discourage the one-year enlistments?

Gen. HARRIS. We leave it optional with the men. If it were left with us, we would prefer three-year enlistments. What influences the men is the difference in pay, which is \$90.

PROCEDURE OF REDUCING ARMY.

Mr. ANTHONY. If you had it put up to you, the proposition of reducing the Army from 216,000 to 175,000 men, how would you best accomplish it? By permitting the terms of enlistment of the one-year men to expire?

Gen. HARRIS. That would undoubtedly do it.

Mr. ANTHONY. Or discontinue enlistments?

Gen. HARRIS. Principally discontinue enlistments for one year.

Mr. ANTHONY. That would be feasible to reduce it to 175,000 without wholesale discharge of men?

Gen. HARRIS. Yes. If I may make plain the Secretary's answer, the question put to him was not the question of reducing to 175,000, but to reduce to such an extent that the appropriation for this year would not be exceeded. That would necessitate reducing below 175,000 men.

Mr. SLEMP. That is to say, that the general average for the Army throughout the fiscal year would be in accordance with the appropriation of last year, something like 165,000 men.

Gen. HARRIS. That would necessitate our cutting the Army down to something like 125,000 men.

Mr. SLEMP. For the remaining part of the fiscal year?

Gen. HARRIS. We would have to discharge 100,000 men to get down to that number——

Mr. SLEMP. If 40 per cent of your 200,000 will expire between now and the end of the fiscal year, that would be over 80,000.

Gen. HARRIS. They will expire in one year. However, all of those would not expire between now and July. Then in order to get it down, to bring the average down, you would have to discharge a large number of them in three months.

Mr. ANTHONY. That would be rather drastic.

Gen. HARRIS. That would be rather drastic in order to keep within the appropriation.

Mr. CRAMTON. In that statement of yours, General, will you indicate the recruitings, whether one or three years?

Gen. HARRIS. I really believe that if we stopped enlistments to-day and discharged 100,000 men we would exceed the appropriation.

Mr. SLEMP. You would exceed the appropriation?

Gen. HARRIS. That is my estimate.

Mr. SLEMP. You mean the appropriation for this fiscal year?

Gen. HARRIS. For the current fiscal year.

Gen. LORD. A reduction of force, Mr. Chairman, must be made, to avoid a deficit, for Pay of the Army. Under the present program

we have only money enough for Pay of the Army to last until the middle of February, because Congress did not give us appropriations sufficient for an average army of 175,000 men. There was a deficit on the basis of 175,000 men of something more than \$20,000,000 in the present Army bill as enacted into law.

Mr. ANTHONY. So that any restriction that we put in this bill, which probably would not pass until the middle of February, would not be operating to hold you within the appropriation? It would have to be done by the department itself acting without any legislative instruction?

Gen. LORD. Yes, sir.

Mr. Sisson. In your effort to keep within the appropriation, how much deficit would there be, in your judgment. General—of course, your estimate will be rather a guess—if enlistments were stopped now and you permit those whose enlistments expire to go off the roll?

Gen. LORD. There are separated from the service about 7,000 a month. It would be in excess of \$30,000,000.

Mr. Sisson. Even if you stopped now?

Gen. LORD. Yes; because we started out with approximately \$20,000,000 less than necessary to take care of an army of 175,000.

Mr. Sisson. You have 7,000 a month and you have six months. That would be 42,000. With \$2,000 for each it looks as though \$84,000,000 would be necessary and you only ask for a deficit of \$60,000,000.

Maj. SMITH. Is the \$2,000 the amount for pay only?

Gen. LORD. The same condition as to insufficient appropriations applies to the Quartermaster General's Department, and particularly subsistence.

Mr. Sisson. I understood the deficiency you are asking for is \$60,000,000.

Mr. ANTHONY. The Secretary stated that in his judgment it would be about \$60,000,000.

Mr. Sisson. Then this would absorb \$42,000,000 of that. It would leave \$18,000,000 deficit.

Gen. LORD. The deficit for Pay in the present program as announced by the War Department will be approximately \$40,000,000, but, as I say, there is a factor of something more than \$20,000,000 because of failure to appropriate enough for the pay of an army of 175,000 men.

Mr. Sisson. It looks like that figure is high.

Gen. LORD. It is not.

Mr. ANTHONY. The item of \$11,000 is all that you are asking for for The Adjutant General's Department?

Gen. HARRIS. That is all.

Mr. ANTHONY. How much have you left from the \$3,500,000 appropriated in the Army appropriation act for 1920 for completion and preservation of the selective service records, etc.?

Gen. HARRIS. The amount is approximately \$396,000.

Mr. ANTHONY. How nearly is that work completed?

Gen. HARRIS. The work will all be completed by June 30, 1921, except the statements of service of men whose records are incomplete, or whose records are contradictory or conflicting.

Mr. ANTHONY. Will it be completed within appropriation?

Gen. HARRIS. Yes. The first part of the work was very expensive, in making the preliminary preparations.

Mr. ANTHONY. I think that is all under the head of The Adjutant General's Department.

FRIDAY, DECEMBER 17, 1920.

COAST ARTILLERY.

STATEMENT OF MAJ. GEN. F. W. COE, CHIEF OF COAST ARTILLERY.

COAST ARTILLERY SCHOOL, FORT MONROE, VA.

Gen. LORD. Mr. Chairman, Gen. Coe, Chief of Coast Artillery, is here this afternoon.

Mr. ANTHONY. All right; we will hear Gen. Coe now. You are the Chief of Coast Artillery, Gen. Coe?

Gen. COE. Yes, sir.

Mr. ANTHONY. We are on the item for Coast Artillery School, Fort Monroe, Va., for which you are asking this year for \$15,000; the amount given you for the present fiscal year was \$11,600?

Gen. COE. The total amount asked for in the estimates is \$37,400, Mr. Chairman.

Gen. LORD. Yes; there are additional items; the first one is \$15,000.

Mr. ANTHONY. Yes, I see—making a total of how much?

Gen. COE. \$37,400 in the estimates for next year, as against an appropriation of \$28,000.

Mr. ANTHONY. As against \$28,000 for this year?

Gen. COE. Yes; the appropriation for the Coast Artillery School has been \$28,000 since 1911, if not further back. We have asked in the last two years for an increase in that appropriation, which has not been approved.

Mr. ANTHONY. For what purpose do you want the additional money that you are asking for over what was given you for the present fiscal year?

CAPACITY OF SCHOOL.

Gen. COE. Mr. Chairman, the capacity of the Coast Artillery School—say, during the year 1915-16—was 50 officers and approximately 100 enlisted men. The strength of the Coast Artillery was increased about 50 per cent in enlisted men and something more than that in officers in 1916, and the increased capacity of the school is the reason for the increase in the estimate.

The actual capacity of the school, as far as the buildings now there are concerned, including the temporary buildings, which are in fairly good shape and which are utilized for school purposes, is approximately 230 officers and 400 enlisted men. We will certainly put in the school next year 400 enlisted men; it is probable that we can not put as many as 230 officers there, although we should like to do so. The reason we can not do that is that the officers will probably not be available in those numbers to go through that school.

I have an itemized list which I will put in the record, if you desire—

Mr. ANTHONY (interposing). Does this appropriation for the Coast Artillery School at Fort Monroe, Va., cover any activities of the railroad artillery?

Gen. COE. No, sir; it does not cover any activities of the railroad brigade which is located at Camp Eustis.

Mr. ANTHONY. Do they have a service school at Camp Eustis?

Gen. COE. No, sir.

Mr. ANTHONY. They did have an establishment of some kind at Camp Eustis, did they not?

Gen. COE. We established Camp Eustis as a training station for the Coast Artillery during the war.

Mr. ANTHONY. But you have no school there now?

Gen. COE. We have no school there now. Of course, the facilities of Fort Monroe proper, of Fort Story, and of Camp Eustis, are all used for school purposes wherever necessary. That is to say, the Coast Artillery School needs a land firing range, as well as a seacoast firing range. We have for our seacoast firing range Chesapeake Bay and the Atlantic Ocean and for the land firing which we cover in the Coast Artillery School, we utilize the range at Camp Eustis.

NUMBER OF STUDENTS.

Mr. ANTHONY. Will you tell the committee the number of men you have in the school during the present fiscal year, and the number you propose to have during the next fiscal year?

Gen. COE. We have actually going to school there at the present time 90 officers, with 20 ordered to report there January 1 next, for the field officers' course, which is a six months' course. We expect to run two courses, of about 20 field officers per annum. We have there at the present time 246 enlisted men; they are attending the enlisted men's specialists' course—

Mr. ANTHONY (interposing). Are those from Coast Artillery organizations all over the country, or just from that immediate locality?

Gen. COE. All over the United States, and the foreign service.

Mr. ANTHONY. The enlisted men, I mean.

Gen. COE. The enlisted men come from all over the world, wherever we have Coast Artillery troops; they come from Manila, Panama, and Hawaii, and the posts in the United States proper.

Mr. ANTHONY. And how many do you propose to have there next year?

Gen. COE. We propose to have 400 next year.

Mr. ANTHONY. Four hundred officers?

Gen. COE. No; enlisted men.

Mr. ANTHONY. And how many officers?

Gen. COE. I can only estimate that. We will send all the officers available, up to the maximum capacity of the school, which is 230. It will probably not be over 150 or 175 officers next year.

Mr. ANTHONY. Where does the necessity for this increased amount of money that you are asking for come from?

Gen. COE. The increased need for money arises in the actual carrying on of the school work.

Mr. ANTHONY. You said you had asked for increased appropriations for several years, and they had been denied?

Gen. COE. Yes, sir.

Mr. ANTHONY. What did you ask for those increases for?

Gen. COE. For exactly the same things as now.

Mr. ANTHONY. What are they?

PURCHASE OF DIESEL ENGINE.

Gen. COE. For carrying on the work of the various departments for instruction material; there is, for example, an item for a Diesel engine, which we are very anxious to install for instruction as well as for testing purposes.

Mr. ANTHONY. What is the cost of that Diesel engine?

Gen. COE. \$6,250.

Mr. ANTHONY. Has the Government any Diesel engines in its service?

Gen. COE. Yes; they have some Diesel engines in operation; there is one set in the Philippines. They have also some pseudo Diesel engines in other places.

Mr. ANTHONY. But not the real article?

Gen. COE. No, sir.

Mr. ANTHONY. Did not the Government buy a large number of them during the war?

Gen. COE. Not for Coast Artillery purposes, so far as I know.

Mr. ANTHONY. Did not the Shipping Board buy a lot of them?

Gen. COE. I can not answer as to that.

Mr. Sisson. What is a Diesel engine?

Gen. COE. The Diesel engine is an engine that burns heavy fuel oil, instead of gasoline. It has a good many other technical differences which I do not know myself.

Mr. SLEMP. You do not operate any vessels at that school, and perhaps Diesel engines are more useful on seagoing vessels than they are in other operations. What do you want them for?

Gen. COE. It is believed that the Diesel engine is the coming engine for a good many purposes beside marine work; and in the replacements which may eventually take place —

Mr. SLEMP (interposing). I mean, if you had one, what would you use it for?

Gen. COE. For instruction and test purposes.

Mr. ANTHONY. When you want a piece of machinery like that, do you make inquiries to find out if any of them are available in any of the other departments of the Government?

Gen. COE. We would do so; yes.

Mr. ANTHONY. But you have not done that yet?

Gen. COE. We have not bought the machinery yet.

Mr. ANTHONY. Well, have you made inquiries yet to ascertain whether the Shipping Board has them—or any other department of the Government?

Gen. COE. Not with regard to that particular item.

Mr. ANTHONY. That is one of the things we would like to have done; and we would like to have you put that in the record. Make the inquiry official, and find out whether there are any such engines

which are surplus and which can be secured by you, rather than going to the extra expense of buying them.

Gen. COE. We will do that. We have done that very thing in a great many other cases, with regard to other material; but I do not know that any inquiries have been made with reference to this.

(The statement referred to is as follows.)

1. Official inquiry has been made of every department of the Government located in Washington to determine whether or not there is such an engine surplus as that described by Gen. Coe. Facts obtained indicate that no other departments of the Government than the War and Navy Departments have surplus engines of any kind.

2. Information from the Navy Department states there is no engine of this kind surplus. The lists of spare Government supplies issued under the direction of the War Department from time to time have been received by the Coast Artillery school, and these lists most carefully scrutinized to determine whether any of the items listed can be utilized at the school. Nothing is included in these lists that would answer the purpose of the engine desired. As this is a special type it is not likely that such apparatus would be surplus in any department. This fact has been borne out by exhaustive inquiry.

Mr. SLEMP. You stated, Gen. Coe, that you have been asking for several years for an increased appropriation. Now, your estimates for 1912, 1913, 1914, and all the way down to 1919, are \$28,000?

Gen. COE. Yes; but we have asked for more than that for the last three years.

Mr. SLEMP. Well, you asked for \$64,000 for 1920; and \$37,400 for 1921. You operated all through the war with an appropriation of \$28,000 for your school expenses.

Gen. COE. Well, of course, we operated during the war with other appropriations, as far as that school is concerned.

SPECIAL APPROPRIATION IN 1919.

Mr. SLEMP. Will there be any other appropriations available to the school now?

Gen. COE. No, sir; there were during the war, but not now. And the only advantages which we had from any expenditures which were made for the school during the war were practically limited to increasing the capacity of the school in the way of buildings, and some material, of course, which we bought during the war and which we still have. I think there was a special appropriation for the school during the war—in 1919—of \$94,500.

Mr. Sisson. Did you use that?

Gen. COE. I do not think we used all of it.

Mr. Sisson. Will you insert a statement as to that for the record?

Gen. COE. Yes; I will submit a statement of that.

(The statement referred to is as follows:)

1. The books of the Chief of Finance show that there is no Treasury balance of the appropriations for the Coast Artillery school, Fort Monroe, Va., which were made in the Army act of June 9, 1918, and the deficiency act of November 1918, totaling \$92,500.

2. The accounts of the disbursing officer who handled this fund during the period which expenditures were made indicate that the entire appropriation, amounting \$12.66, has been expended.

Mr. SLEMP. Your thought is really to increase the number of officers and men there by about 100 per cent, practically, is it not?

Gen. COE. An increase from 1915-16?

Mr. SLEMP. No; you said this year you have 90 and expect 20 more.

Gen. COE. Yes, sir.

Mr. SLEMP. And next year you expect 230 officers and 400 enlisted men; and you think a little increased expenditure there would be necessary for this largely increased number of officers and men? That would be the reason for it?

Gen. COE. Yes, sir.

Mr. ANTHONY. The principal item, however, is the Diesel engine, is it not?

Gen. COE. No; I would not say that the Diesel engine was the principal item.

PURCHASE OF ENGINES, GENERATORS, MOTORS, SPECIAL APPARATUS, ETC.

Mr. ANTHONY. What are the other large items?

Gen. COE. Additional machines and instruments for the direct-current and alternating-current laboratories, including electrometers, rheostats, frequency meters, motors, and accessories require \$3,200; additional instruments for laboratories, including bells, magnetos, etc.—I will not read all of them—\$4,100.

Mr. ANTHONY. Would it be possible to secure some of those from surplus supplies from the Ordnance Department and other departments of the Government that have large stores of electrical material?

Gen. COE. Some of them; yes; I think we can, and some of them not.

Mr. Sisson. Have you made inquiries as to whether you may not have some of those things actually in the possession of the War Department now?

Gen. COE. I have not made any specific inquiries on that point; but we have acquired at various times surplus property—that is suitable for our work.

Mr. Sisson. Well, the property might not be designated as surplus by anybody in the Army having authority to declare surplus; you might have in your reserve stock, and unless an inventory is kept accurately, you might have some trouble in locating it; but if you have an accurate inventory before making an estimate for any of this new material, you might get all you need without any appropriation at all.

Gen. COE. A great deal of work, however, has been done. Mr. Sisson, in determining just what is surplus; and we have gone over, in a great many cases, long lists of items, and have utilized those where we could—for example, in providing the necessary instruction facilities for the National Guard.

Mr. Sisson. Yes; but that would not be declared surplus, that which you would use and expect to hold in reserve?

Gen. COE. Yes, sir; we got that out of what has been declared surplus.

Mr. Sisson. You got that out of what has heretofore been declared surplus?

Gen. COE. Yes, sir.

Mr. ANTHONY. Well, even if it had not been declared surplus, if the Ordnance Department had a great number of these things which they were keeping in reserve, you would be able to get them on request?

Gen. COE. Yes, sir; there is no question about that.

Mr. ANTHONY. Well, Gen. Coe, will you put in the record of the hearing a concise list of the items—not the long list that you have there, but a concise list of the items, for the information of the committee.

Gen. COE. All right, sir.

Mr. ANTHONY. I think it is the desire of the committee to keep these schools going at their legitimate capacity; and we would like to have that information in determining that.

(The statement referred to is as follows:)

Following is a list of the important items referred to:

Additional instruments for fire-control laboratory, including hook switches, bells, magnetos, condensers, induction coils, meggers, faultfinders, dial decade switches, ohmmeters, and portable galvanometers. \$4,177.

Additional machines and instruments for D. C. and A. C. laboratories, including tachometers, rheostats, frequency meters, motors, generators, and accessories. \$3,287.

Navigational instruments, and appliances, including signal bells, binnacles, signal balls and shapes, calking tools, manila and tarred cordage, wire-rope splicing tools, three-arm protractors, mercurial horizons, boat compasses, charts, plotting sheets, etc., for use in the Nautical Department, \$3,200.

Marine engineering instruments and appliances including engine indicators, dead-weight testers, complete with weights, spring balances, thermometers, etc., for laboratory, \$1,000.

Photographic supplies, including films, plates, paper, chemicals, and other supplies, \$1,000.

Professional and text books, \$1,320.

Diesel engine, 25 to 50 horsepower, for experimental and instructional purposes, \$6,250.

One Sprague electric dynamometer for motor transportation laboratory, \$4,000.

One Midgleny indicator complete with photographic attachment, \$750.

One up-to-date condenser equipment for use in connection with steam-engine tests, \$4,200.

EFFECT OF REDUCTION OF SIZE OF ARMY.

Mr. Sisson. If Congress should decide—I am not determining whether it will or not; but suppose Congress should cut the Army down—not to 282,000, but down to 175,000 or 150,000, that would be reflected in these schools, would it not?

Gen. COE. It would not in the Coast Artillery school, which is the only one for which I can speak definitely.

Mr. Sisson. Why not?

Gen. COE. For the reason that, even if the Coast Artillery Corps were recruited up to not more than 60 per cent, we would still be able to, and would send there, at least 400 enlisted men for instruction next year; at least, that would be our intention.

Mr. ANTHONY. It would not affect the commissioned personnel?

Gen. COE. It would not affect the commissioned personnel; I think not. So that the result would be, whatever the action of Congress might be as to the Army, or whatever limitations might be imposed, it would not affect the work of the Coast Artillery school as we have planned it.

Mr. ANTHONY. Of course, you could give instruction to a very much larger percentage of your force?

Gen. COE. Well, of course, 400 is a very small percentage of the Coast Artillery Corps, whether it is figured on the basis of 30,000, or on the basis of 20,000.

Mr. ANTHONY. Well, suppose it was 40,000 now, and was cut down to 20,000; you would get twice as large a percentage.

Gen. COE. You would get twice as large a percentage, but you would still send the same number of men to that school.

COURSES OF INSTRUCTION.

Mr. ANTHONY. Are you giving that instruction to those enlisted men for the purpose of carrying out a course of vocational education for those men, or is the instruction necessary to make efficient for their Coast Artillery work?

Gen. COE. This school at Fort Monroe has nothing to do with the vocational education of enlisted men at large; it is for the training of specialists; it is for the training of men who become radio sergeants, electrician sergeants, engineers, highly trained men--men to whom we have to pay high salaries after we train them, or they will go out into civil life and command high salaries. We lose a very large proportion of them as it is.

Mr. ANTHONY. You make them such good men that they will not stay in the Army?

Gen. COE. Yes, sir; a graduate of the Coast Artillery school is recognized in a great many trades and professions as a desirable man to have.

With reference to one question which was asked concerning the personnel of the officers at the Coast Artillery school, we take graduates direct from West Point, or officers from other sources upon their first entry into the Army, and give them what we call the "basic course"; that is, we do not consider that they are qualified to command a company or serve as officers until they have taken that basic course, no matter where they came from. That is one year in length.

Before a man has reached the tenth year of his service we attempt to put him through what we call the "company commander's course," which is a technical course and is supposed to qualify him technically to handle any kind of artillery which the Coast Artillery controls; that is, railroad, motor-drawn, tractor-drawn, seacoast guns, and mortars.

Then the third course which we give is the "field officers' course," which is a "tactical course"; and in addition to the tactics of artillery, we endeavor to give the officers a foundation for the "Leavenworth course," which is the next step in the regular, orderly education of an officer.

So that our work is all done in one place, and in three different classes. We are fortunate in being able to do it at one place, because, as I said before, we have unlimited ranges, both on land and on water.

VOCATIONAL TRAINING.

Mr. Sisson. Where do you do your vocational training?

Gen. COE. That is handled in the various posts throughout the country.

Mr. Sisson. It is not separate from the other vocational schools?

Gen. COE. Every post has vocational training; they all have schools of one kind or another.

Mr. Sisson. Your vocational training in your department, does that differ from the vocational training in the other departments of the Army?

Gen. COE. No; except as our facilities are different from those of the other departments. For example, we have, of course, better facilities for giving instruction in engines and electrical appliances, and things like that, than the Infantry does, because all of our posts have electrical plants, where the men not only do the work, but are also given the vocational training.

Mr. Sisson. But your vocational training posts are separate from those of the Infantry and the Cavalry?

Gen. COE. Yes, sir; it is all done at the regular posts where the soldiers are stationed—all of the vocational training. Of course, at a large post, such as Camp Eustis, or a large command, such as the tractor brigades, we give perhaps eight or ten different vocational courses; but in a small post, where there are perhaps only 100 men, we are generally limited to one or two courses, which are all we can give with any satisfaction.

In the case of the coast defenses of Boston, for example, there are five garrisoned posts, and all of them are comparatively small. If a man wants to learn a particular trade which is taught at Fort Strong, for example, arrangements are made so that he can be transferred to Fort Strong and there take that vocational training. That is the policy under which we are working; but we do not undertake to teach shoemaking, for example, at every one of the five posts in Boston Harbor.

Mr. ANTHONY. Have you any other suggestions to make in regard to this item, Gen. Coe?

Gen. COE. No; I have no others.

Mr. ANTHONY. I think that will be all, then.

FRIDAY, DECEMBER 17, 1920.

EXTRAORDINARY AND NORMAL MILITARY REQUIREMENTS.

Gen. LORD. Mr. Chairman, I will introduce in the record a statement making a tentative classification of the estimates under two general heads, extraordinary and quasi-military requirements, and normal military requirements. The bureau chiefs were directed to submit their estimates under these groups, thinking that possibly they might be of assistance to the committee. The extraordinary and quasi-military requirements were divided into two classes—cleaning up war work and quasi military, while the normal military requirements were put into two groups, showing the amounts that are independent of any increase or decrease in the size of the Army, and the amounts that are dependent upon the increase or decrease in the size of the Army. Personally, I think it would be rather difficult to justify the large amounts carried as constants; that is, the amounts that are not affected by the size of the Army. This classification, of course, is based on the estimates as they appear in the Book of Estimates.

(The statement referred to is as follows:)

Extraordinary and quasi military requirements.		Normal military requirements.			Variable items alternative.		
General objects.	Cleaning up war work.	Quasi military only.	Total extraordinary and quasi military requirements.	For all strengths (constants).	Enlisted strength.		Grand total.
					Amounts dependent on enlisted strength.	Total normal military requirements.	
(1)	(2)	(3)	(4=2+3)	(5)	(6)	(7=5+6)	4+7
<hr/>							
Secretary of War, contingencies of the Army..... \$100,000.00							
Chief of Staff.....							
General Staff College.....							
Contingencies Military Intelligence Division, General Staff Corps.....							
Expenses of military observers abroad.....							
General service schools, Fort Leavenworth, Kans.....							
Chief of Infantry, Infantry School, Camp Benning, Ga.....							
Chief of Cavalry, Cavalry School, Fort Riley, Kans.....							
Chief of Field Artillery.....							
Field Artillery schools.....							
Instruction in Field Artillery activities.....							
Adjutant General's Department, contingencies, headquarters of military departments, etc.....							
Chief of Coast Artillery, Coast Artillery School, Fort Monroe, Va.....							
Chief Signal Officer.....							
Signal Service of the Army..... 173,487.68							
Washington Alaska military cable and telegraph system..... \$212,434.00							
Air Service, Army..... 496,277.00							
Supplies, services, transportation, and construction:							
Pay, etc., of the Army..... 4,611,218.00							
Mileage to officers and contract surgeons..... 1,020,000.00							
General appropriations, Quartermaster Corps -							
Subsistence of the Army..... 750,640.00							
Regular supplies..... 239,544.00							
Incidental expenses..... 75,000.00							
Transportation of the Army and its supplies..... 8,074,636.00							
Water and sewer at military post..... 6,796,577.00							
Laboring and employment of civilians..... 4,702,309.00							
..... 11,000.00							
..... 37,400.00							
..... 37,400.00							
..... 10,524,112.32							
..... 57,168,208.00							
..... 208,048,612.00							
..... 1,980,000.00							
..... 212,659,830.00							
..... 3,000,000.00							
..... 64,480,895.00							
..... 67,920,408.00							
..... 16,341,906.00							
..... 63,000,000.00							
..... 6,796,577.00							
..... 30,573,796.00							

ARMY APPROPRIATION BILL, 1922.

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[illegible]

General objects.	Extraordinary and quasi military requirements.			Normal military requirements.		
	Cleaning up war work.	Quasi military only.	Total extraordinary and quasi military requirements.	For all strengths (constants).	Variable items alternative.	
					Enlisted strength.	Grand total.
(1)	(2)	(3)	(4=2+3)	(5)	(6)	(7=5+6)
Chief of Finance, transportation of disabled soldiers, sailors, or marines on furlough.....				\$100,000.00		\$100,000.00
Reserve Officers' Training Corps Branch, War Plans Division, (General Staff, civilian military training camps).....		\$3,000,000.00	\$3,000,000.00			3,000,000.00
Total.....	\$15,735,806.40	13,744,358.00	29,500,224.40	299,376,186.34	\$319,126,659.46	618,003,070.20
Additional items omitted from above tabulation:						
Arming, equipping, and training the National Guard.....						\$34,808,000
Arms, uniforms, equipment, etc., for field service, National Guard.....						40,000,000
Total.....						74,808,000

TUESDAY, DECEMBER 20, 1920.

OFFICE OF THE CHIEF SIGNAL OFFICER.

SIGNAL SERVICE OF THE ARMY.

STATEMENTS OF MAJ. GEN. GEORGE O. SQUIER, CHIEF SIGNAL OFFICER; MAJ. J. O. MAUBORGNE, CAPT. J. G. ANTHONY, CAPT. A. BLISS ALBRO, SIGNAL CORPS; AND LIEUT. COL. C. C. CULVER, AIR SERVICE.

REDUCTION IN ORIGINAL ESTIMATE.

Gen. LORD. May I put in the record the fact, Mr. Chairman, that the original estimate submitted by the Signal Corps, based on the military program, of an Army of 230,000 enlisted men was \$17,631,600.82? This was reduced by the board appointed by the Secretary of War to \$10,697,600, which is the amount that appears in the Book of Estimates.

Mr. ANTHONY. That is, that was reduced subsequent to the original estimate?

Gen. LORD. The original estimate submitted was something more than seventeen and a half million dollars. That was cut by the board appointed by the Secretary of War to the amount that appears in the Book of Estimates, which is \$10,697,600.

Mr. ANTHONY. Has there been any consideration of a reduction in the total estimate for the Signal Corps since we suggested to the Secretary of War that estimates might be submitted based on an Army of 175,000?

Gen. LORD. I learned from Gen. Squier that the Signal Corps is prepared to submit an estimate on the basis of an Army of 175,000 men.

Gen. SQUIER. I have prepared the reduced estimate and the history of it.

GENERAL STATEMENT.

Mr. ANTHONY. Do you desire to make a preliminary statement, General?

Gen. SQUIER. I think it might be well if I did so.

Mr. ANTHONY. Tell us what you hope to accomplish during the next fiscal year.

Gen. SQUIER. The Signal Corps occupies a unique position, in that it is a supply department for the entire Army on the one hand, while on the other it is a fighting, combatant arm. These two aspects can be separated, and it is necessary for the chief signal officer to so separate and consider them. As far as the estimate for the Signal Corps goes, its own requirements form a very small part of the amount asked for. The major portion of the estimate covers items that we are required by existing law to supply to the Army at large, in peace and in war.

With regard to the combatant features of the Signal Corps, we are, as you know, a small corps; something like 3 per cent was agreed upon by all nations as a proper strength. That percentage varies

a little bit in some countries, but it supplies an essential and absolutely necessary service of communication of all sorts.

PERSONNEL.

Mr. ANTHONY. What is the present commissioned and enlisted strength of the Signal Corps?

Gen. SQUIER. About 4,800 men and something like 208 officers. Of course, we are not up to full strength.

Mr. ANTHONY. What is the authorized commissioned and enlisted strength?

Gen. SQUIER. Five thousand enlisted men. We are practically full in enlisted strength; there are about 200 vacancies.

Mr. ANTHONY. What is the situation in regard to the commissioned personnel?

Gen. SQUIER. We have 208 and we are allowed 300. We are going rather slowly on that feature. We require such a highly specialized class of men that I have not pushed that feature very much. I want to get the right kind of people.

Mr. ANTHONY. Have you been able to get a pretty good class of men?

Gen. SQUIER. Nothing like the class we would have if we had started to build up the Signal Corps right after the armistice, because a number of good officers secured good jobs when they left the Army. But I feel that on the whole we have been fairly successful. We have to be careful in selecting our officers; they are practically hand-picked people.

In regard to the combatant features of the Signal Corps, I do not need to say to you gentlemen on this committee how important they are in war. I believe we were unusually successful in performing our functions during the last war. The old idea of the Signal Corps, as we used to think of it, has completely changed since the last war, and now our service practically extends from factory doors in this country to the front line in the zone of the advance, wherever that may be located. In service it must be working with every unit of the Army, no matter whether it is sending messages for The Adjutant General, or carrying messages to the firing line. This service has risen to a very paramount position in war, essentially due to the element of time being the controlling factor in strategy, and as the element of surprise must also be considered, together with the immense terrain involved, it becomes essential that the electrical method must be the basic means used. We must, however, employ all known methods of signalling to the best advantage. It is the duty of the Signal Corps to continually keep up with or ahead of the world, from a strictly Army standpoint.

We are passing through, I think I ought to say, a very unusual period in the evolution of signaling methods. In my nearly 40 years' service in the Army there have been certain periods which have come along when there have been great advances; then there have been other periods which were more or less stabilized. I have never known in my experience a period when signaling methods have received such attention and when such rapid advances have been made as at present. That is evidenced in the proceedings, during the last couple of months, of the International Communications Conference.

which has been meeting here and in which I have been a representative of the War Department. The five great powers have been meeting daily and nightly in reference to this question of communication of all kinds. Its importance has risen to such a state that all the countries are contending for the allocation of the ether for commercial as well as for war purposes.

Another peculiar thing about the Signal Service is that while we are creating all these things, as I said, for war, practically everything we are creating in the Signal Service is applicable both to peace and war, and their commercial importance is just as great as their war features. So that the money we are spending here for research and development is in a peculiar sense applicable immediately to all needs of all countries.

BENEFIT OF EXPERIMENTS TO PUBLIC.

Mr. CRAMTON. Will you give us one or two illustrations of the developments of science that have been given to the public through the experiments of your branch of the service?

Gen. SQUIER. Yes; that is occurring right along, and I might mention a little item in that connection. I think Congress gave us in 1909 an appropriation of \$15,000 for research, which has resulted in more or less fundamentally changing the methods in at least five countries up to the present time. I refer to the multiplex telephone and telegraph system, which I hope some day will bring the rates down.

I want to bring out this point, that the sort of things we are doing have uses in commercial life equally important with their uses in military affairs.

Mr. ANTHONY. Are you looking forward to the time when we will be able to use commercial telephones without wires?

Gen. SQUIER. Yes; we are using them now. In fact, radio methods are being used quite extensively now. The radio telephone is here, and the radio methods applied to wires are changing the older art until it threatens to disappear in the comparatively near future.

Mr. ANTHONY. You are asking for \$10,697,600 for the next fiscal year, and for the present fiscal year there was appropriated \$4,000,000 for the support of your department. Will you be able to get along on \$4,000,000?

Gen. SQUIER. Yes, sir.

DEFICIENCIES.

Mr. ANTHONY. Will you incur any deficiencies?

Gen. SQUIER. We have certain deficiencies, as will appear.

Capt. ALBRO. There is a supplemental estimate before the Secretary of War at the present time, due to the creation of the three new corps areas, and because of the fact that the Signal Corps estimate, as it passed Congress last year, was reduced to a point where we knew that any increased demand whatsoever would produce a deficiency. Further, a larger deficiency could be incurred this year if the Signal Corps were supplying to the Army at the present time the modern apparatus which has been tested, approved, and ordered issued. Owing to the fact that we do not care to incur a deficiency

this year we can not supply the apparatus in question, but we are asking the money for it in next year's appropriation.

Mr. ANTHONY. What class of apparatus is that?

Capt. ALBRO. Radio apparatus.

SALE OF SURPLUS WAR SUPPLIES.

Gen. SQUIER. Perhaps I may throw some light on the question if I may add a word here. Of course, last year has been an unusual year. We have been in the throes of reorganization. We were fortunate in France in having something that Europe wanted; we sold out very nicely. I think we sold everything we had at about 85 cents on the dollar.

Mr. ANTHONY. Of the supplies for the Signal Corps?

Gen. SQUIER. Yes. I think we made a record on that. We had a most modern system of communication.

Mr. ANTHONY. Did you sell off everything?

Gen. SQUIER. Practically so.

Mr. ANTHONY. That was not included in the sales made by the Parker commission?

Gen. SQUIER. I think probably not. The fact, as far as I am concerned, is that we sold out our supplies. We had something Europe needed in its everyday life.

Mr. ANTHONY. You had a great accumulation of copper and cable that had a fixed value?

Gen. SQUIER. A permanent value; yes. As I stated before we sold out very advantageously to Europe because we had something that they wanted. The cable we laid across the channel and used during the war was sold to the English and the French. I think at a slight profit.

Mr. ANTHONY. Who bought that cable?

Gen. SQUIER. Both the French and the British Governments, together.

Mr. ANTHONY. Did you not accumulate during the war a large surplus of signal apparatus for use of troops?

Gen. SQUIER. Yes, sir.

Mr. ANTHONY. Is that available now?

Gen. SQUIER. What remained has been issued. We sold a considerably large amount in Europe and did not bring home much.

Mr. ANTHONY. In this country, what did you do with your surplus?

Gen. SQUIER. First, we were fortunate in selling almost everything we had, because almost all of it was in Europe. We brought home only certain things that we could use and have issued these to the Army. They are not the best, but consist of the French apparatus used during the war and miscellaneous radio equipment of obsolescent types. Knowing that the art in this country was in a fluid state, we are making use of the inferior apparatus for the present.

Mr. ANTHONY. You mean that since the war there has been a rapid advance made in the field equipment?

Gen. SQUIER. Yes, sir.

Mr. ANTHONY. Much of this surplus war equipment is out of date?

Gen. SQUIER. Yes, sir. It has been issued to troops; that is, the French and other apparatus that would not do for war, but which will do very well to use in training troops to a certain extent.

Mr. CRAMTON. The radio telephone has reached a point where it will supersede the line telephone?

Gen. SQUIER. I will not say entirely, but very largely. It is a very convenient thing because you do not have to have wires. The point I want to make is that the radio apparatus we have issued to troops is not the best, because what we did send home was out of date, to a certain extent. However, it is good enough to train men with, to a certain extent. In my opinion it was the proper thing to do because it had no sale value.

SUPPLIES HELD IN RESERVE.

Mr. CRAMTON. Are you keeping much of that material in reserve?

Gen. SQUIER. Only such as was left from the war and has no sale value. It is a standard thing and is not salable in commercial life, so we have very carefully stored what we have for the purposes I have indicated. We say we have no surplus property. We have sold everything we should sell and have kept only the nondeteriorating things that we know are good to have in war. We have issued to our troops inferior apparatus, because of two reasons—first, the recent rapid advances in the art of radio communication, and second, because of lack of funds with which to purchase new equipment.

Mr. ANTHONY. So you are not asking for any appropriation for sales expense?

Gen. SQUIER. No, sir. We have cleaned up promptly. We have a certain amount in reserve, like field wire, which is the hardest thing to get in time of war. We never did get enough of it in the war. We have made a careful study of our property and it is in very good shape. But I do not want you to imagine that the Army is as well equipped with radio as it ought to be. It is not. What the Army has is largely inferior apparatus.

RADIO COMMUNICATION.

Mr. ANTHONY. Do you mean to say that from now on you want to supplant the ordinary means of communication between troops in the field, that we used to rely on, and displace the telephone and telegraph entirely with radio?

Gen. SQUIER. Not entirely. Wire will always be used; we use radio on wires, and we use the radio method guided by wires. I do not mean that the older art is gone, but it is being supplemented in the front-line area by the newer apparatus which we have to furnish to the Army.

Mr. ANTHONY. There has been some discussion as to whether the radio-telephone apparatus will work under war conditions.

Gen. SQUIER. There is no question about it.

Mr. ANTHONY. We have had testimony before the committee this year and also last year that while it would work under ordinary tests, yet under extraordinary conditions of battle it could not be utilized.

Gen. SQUIER. Of course. It is all technical apparatus and has to be in the hands of people who know how to use it, but it is fre-

quently in the hands of amateurs. Radio is not supplementing wire entirely in the back areas, but it is coming into and dominating the field in the front line. It must, and will, work, but it has to be in the hands of people who know how to make it work. When it fails, which it frequently does, such failure is because it is in the hands of people who do not know how to use it.

Mr. ANTHONY. Did all the armies in Europe use radio communication successfully?

Gen. SQUIER. Yes, sir. We were just beginning to realize the extent of the radio field at the end of the war. If the war had lasted another six months we would have used much more than we do now. The next war will be largely a radio war, not only across the ocean, but around the world. You can communicate with the Antipodes now.

Mr. CRAMTON. In regard to this new naval station in France, that has a very long wave length, has it not?

Gen. SQUIER. The Lafayette station has the longest wave length in the world.

Mr. CRAMTON. That is supposed to be able to reach clear around the world?

Gen. SQUIER. Yes, sir; it does.

Mr. ANTHONY. Before we take up the details of your estimate I want to ask you whether you have read the language of the appropriation pertaining to the Signal Corps?

Gen. SQUIER. Yes, sir.

ACQUISITION OF PATENT RIGHTS—CHANGE OF LANGUAGE.

Mr. ANTHONY. Have you any suggestions to make in regard to the language?

Gen. SQUIER. I have one to make, and I am authorized to hand it to you direct. Normally I do not suppose I would be authorized to do it, except through the Secretary of War.

Mr. ANTHONY. We would like to have any suggestions you would like to make.

Gen. SQUIER. There is only one change I would like to suggest [submits paper].

Mr. ANTHONY. That is to strike out the words "experimentation and research for the purpose of developing improvement in apparatus and methods of signaling" and substituting therefor "experimental investigation, research, purchase, and development of improvements in apparatus and methods of signaling and accessories thereto, including patent rights and other rights thereto." This change is due to the inability to secure patent rights under peace-time conditions other than by purchase.

Gen. SQUIER. That is just a suggested change in the wording.

Mr. ANTHONY. The other departments have authority to secure patent rights in time of peace, and you would like to have that same authority?

Gen. SQUIER. Yes, sir. This is the same authority as is provided in the case of the Air Service. We are continually being confronted by demands of the patent people; we are fighting them all the time, and the amount involved runs into the millions. The Navy has the same power we are asking. By having this authority we can settle a

proposition and buy out a man who is threatening us with a suit for millions. We have a board that passes on those cases. Being experts ourselves we can appraise his proposition, close it up, and keep it out of the courts.

Gen. LORD. That is a proposed substitution for the words beginning in line 16, on page 19, after the semicolon and ending with the semicolon on line 19.

Gen. SQUIER. It is the same authority that the Navy has now, and they have a distant advantage over us because they are permitted to close out with the patent people when they come along and we can not do it. The request is largely based on the experience of the Navy.

Mr. ANTHONY. What patents are there that you want to acquire at this time?

Gen. SQUIER. I have nothing specifically in mind.

Mr. ANTHONY. You want the authority in case something develops.

Gen. SQUIER. There is something coming up all the time. We have new cases year in and year out.

There is one other thing I would like to refer to. We are a supply department and the items which are shown in our budget are those we are charged with by law. All of the new things seem to be wished on us. Things that a few years ago we never thought of are developing all the time and the Signal Corps, itself, I think, has had the greatest sort of development. Meteorology and photography, and things of that sort have grown up until we are involved in purchasing everything from bird seed for the pigeons to equipping vessels on the Pacific with radio for the protection of life. Then there is sound and flash ranging, and work of that kind, so that some of these items which are mentioned here would have sounded very strange a few years ago. The law gives them to us and therefore I call attention to them.

SCHOOL AT CAMP ALFRED VAIL.

Mr. ANTHONY. In line 17, on page 18, you have some new language. You want to insert the word "school," which will be located at Camp Alfred Vail, N. J. What is the necessity for that?

Gen. SQUIER. Because it is a school.

Mr. ANTHONY. In other words, you have already located your school there?

Gen. SQUIER. As you know, Mr. Anthony, our principal activities are located at Camp Vail.

Mr. ANTHONY. That is the school you transferred from Fort Leavenworth last year?

Gen. SQUIER. Yes, sir; not only that, but it is the school for the whole enlisted strength.

Mr. ANTHONY. That school was transferred to Camp Vail before you had the legislative authority?

Gen. SQUIER. Yes, sir; we were sort of turned out of Fort Leavenworth. They did not seem to have room for us there.

Mr. CRAMTON. Is it entirely desirable to have these schools for the various branches of the service separated and scattered?

Gen. SQUIER. In our own case—I do not want to speak for the other branches of the service, but in the case of the Signal Corps we already have a vocational training branch. Everybody we have is

especially trained, and we must have a place where we can teach our raw recruits all these 27 or 30 different kinds of professions that we use in the Signal Corps.

Mr. ANTHONY. Your branch is one branch which is peculiarly fitted for the vocational training?

Gen. SQUIER. Yes; you can not make anything else out of it. Our men are all specialists.

Mr. ANTHONY. You are not only going to train the officers in their work at Camp Vail, but also the enlisted men?

Gen. SQUIER. Yes, sir; that is our school for enlisted men, and the the only one we have. Instead of having a number of schools, I believe in having one.

Mr. ANTHONY. You make radio men, electricians, mechanics, and other kinds of specialists?

Gen. SQUIER. Yes, sir; every sort of specialist, and we save money by having just one school, one overhead, one commanding officer, and one heating plant. We think we can do it in that way to the best advantage. We try to save on overhead. I could have a dozen schools in different places, with an overhead for each one. That would look well on paper. But we would have to have a separate commanding officer here, a separate adjutant there, and so forth. We have only one place of that kind, and we are putting everything right there. The laboratory is there. The same commanding officer can just as well supervise that as anything else, and I believe it is in the line of economy.

We have located the school in the East. It would do me no good to have it in Arkansas or any other place in that part of the country. It must be near enough to New York to have its advantage, but not near enough to have its disadvantages. Gentlemen, we propose to make it a Signal Corps technical place. Of course, our troops are serving with divisions all over the country in the Army, but Camp Vail is the enlisted man's school, the officers' school, and the location of our laboratory as well.

PURCHASE OF SUPPLIES.

Mr. ANTHONY. I notice at the top of page 18 you propose to omit the word "purchase."

Gen. SQUIER. We are now required to purchase.

Capt. ALBRO. That should be put back in the bill again.

Gen. SQUIER. We have been required since December 1 to purchase, store, and issue.

Mr. ANTHONY. You have always had authority to purchase?

Gen. SQUIER. Yes, sir.

Mr. ANTHONY. That is, as one of the technical branches of the Army it has always been the custom to allow the technical branches to purchase their own technical supplies?

Gen. SQUIER. Yes. Temporarily that authority was taken away.

Mr. ANTHONY. During the war?

Gen. SQUIER. Yes, sir; two weeks before the armistice, and so practically after the war.

Gen. LORD. Its restoration is to carry out the provisions of the reorganization act, which authorizes the Secretary of War to assign the purchase of technical supplies to the bureaus concerned.

Gen. SQUIER. In regard to the proposition generally, that is a moot question. I can only speak for my own corps. No one can purchase our things as well as the people who know about them.

Mr. ANTHONY. You are authorized to purchase motor vehicles?

Gen. SQUIER. Yes, sir.

Mr. ANTHONY. What classes of motor vehicles do you purchase?

Gen. SQUIER. Only those that are technical, like the motor-drawn radio tractor set.

Mr. ANTHONY. If you need an ordinary truck for the Signal Corps, you get it on requisition?

Gen. SQUIER. Yes, sir. We do not want to have anything to do with that kind of purchases. It is only in the cases where we have to have a piece of technical apparatus. Those are very limited. There are only a few motor-tractor sets.

ELECTRICAL INSTALLATIONS.

Mr. ANTHONY. What is the meaning of the words "electrical installations" on page 19, line 8? What is covered by that?

Gen. SQUIER. We are charged with the telephone and telegraph plants at all posts, camps, etc., just like a commercial arrangement.

Mr. ANTHONY. The telephone lines at every post are in charge of the Signal Corps?

Gen. SQUIER. Yes, sir.

Mr. ANTHONY. There used to be a number of them operated by the commercial companies?

Gen. SQUIER. There are still some so operated. I want to start in to buy them out. I am against the policy of having them operated by commercial companies and have recommended buying them out. We have certain contracts made in war time with existing commercial companies for installations in the various cantonments, but in time we hope to get the Government to buy them out and to operate them solely ourselves. This we will have to do ultimately. But I left that out of the estimate this year because we want to save money, but it will come up for action sooner or later. We are also charged with the operation and maintenance of installations at every depot in the country.

TUITION OF OFFICERS.

Mr. ANTHONY. You ask for authority to pay the tuition of officers that you send to schools and colleges, I suppose, and you also ask for the payment of laboratory fees?

Gen. SQUIER. Yes, sir.

Mr. ANTHONY. If I recall it correctly, the language of the reorganization act just authorizes the payment of tuition, does it not?

Gen. SQUIER. Yes, sir. The reason is that a technical college has two charges—one for tuition proper and an additional charge for the use of the laboratory by all those people who study science.

Mr. ANTHONY. You want to be able to take care of all the legitimate charges?

Gen. SQUIER. It is just a question of organization at the technical school. On that point, Mr. Chairman, our policy has been to send

as many as possible of our young officers to Yale and to the Massachusetts Institute of Technology and to give them the best technical education we can, because that is the cheapest way to do it, instead of trying to organize some school in the Army to do the work.

CONSTRUCTION, ALTERATIONS, ETC., OF BUILDINGS.

Mr. ANTHONY. I notice that you want the word "construction" omitted at the bottom of page 19. Why is that?

Gen. SQUIER. That is because the construction people are supposed to do that work. We do not want to do that work. It belongs to the Quartermaster's Department, and we do not want any duties we do not have to perform. I have never had a plan of the enlargement of the Signal Corps further than anything that we absolutely needed or anything that will help us in doing our necessary work.

Mr. ANTHONY. That language at the bottom of page 19 appears to be a little involved. It says: "Lease, alteration, and repair of buildings required for storing or guarding Signal Corps supplies, equipment, and personnel not otherwise provided for." You do not mean to store any personnel, do you?

Gen. SQUIER. It says "for guarding Signal Corps supplies."

Mr. ANTHONY. It means personnel required for guarding?

Gen. SQUIER. Yes.

Mr. ANTHONY. That is civilian personnel?

Gen. SQUIER. Yes; civilian personnel, probably.

Mr. ANTHONY. Do you not have sufficient enlisted strength to provide guards for your buildings?

Gen. SQUIER. We have watchmen in certain places where it would be advantageous. In a laboratory in a city, for instance, we just have watchmen.

Mr. ANTHONY. Now, let us go into the details of your estimates.

REVIEW OF ESTIMATES—ELIMINATION OF ITEMS.

Gen. SQUIER. Before we go into the details, I would like to submit this statement to the committee:

The Signal Corps estimate as originally prepared contains 26 items under "Signal Service of the Army" and 4 items under "Washington-Alaska Military Cable and Telegraph System." Of the 26 items under "Signal Service of the Army," 3 items have been eliminated from the approved estimate, because they were not absolutely essential. These are: Item 21, "Corps Headquarters Radio Stations"; item 24, "Betterment, Alaskan Radio System"; item 25, "New Radio Stations in Alaska." The total amount involved in the three items in the original estimate was \$525,000.

Of the remaining 23 items, 7 contained amounts classed as "Amount of less immediate importance." The total amount involved and thus eliminated from the original estimate by this classification, excluding items 21, 24, and 25 therefrom as having been already cared for, amounted to \$2,330,000,000.

The items which were carried forward unchanged from the original estimate into the "Amount absolutely essential" column were items 1, 7, 15, 17, 18, 20, 22, and 23. Of these items the Signal Corps was interested, as far as its own activities were concerned, in items 1 and 7 only.

In contrast to the "Amount absolutely essential," which totaled \$12,011,041.14, the "Approved estimate" amounted to \$10,697,500. In reducing the items in order to reach this figure it was found necessary to allow items 1, 3, 5, 8, 9, 11, 12, 13, 15, and 26 to remain the same as they were in the "Amount absolutely essential" column. The reason for this was that they had already been reduced to a point which meant that any further reduction would not only seriously hamper the Signal Corps but would delay, interrupt, or cause the abandonment of approved activities of other arms of the service. As the Signal Corps has been operating on a peace-time basis for more than a year, it was very easy to reach the conclusion stated above.

Any cuts which the committee may make in the "Approved estimate" will naturally have to be made in other items than those named in the preceding paragraph, with the exception that the Signal Corps itself submits a cut of \$253,258 in item 8, due to duplication in the submission of figures to the finance officer. However, the Signal Corps further submits that item 20 is a duplication and can be eliminated. It is requested, however, that the amount involved in this eliminated item, namely, \$67,918, be added to the amount asked for under the heading "For land forces" in item 4, as that figure has already been reduced below absolutely essential requirements. Item 22 can also be omitted, because after final conferences with the Coast Artillery it has been decided that this item properly belongs in the fortifications bill, and it has been included therein by the Coast Artillery in a reduced amount.

The Signal Corps appears before the committee prepared to assist them in making any cuts which are necessary on account of abandonment of camps, reduction in authorized strength of the Army, or any other changes in the program upon which this estimate was prepared. This is in accordance with the expressed wish of the chairman of the subcommittee, before which the hearing is being held.

Details are at hand to support each one of the subitems of the lump-sum appropriation or budget, as it reads in the law. The subcommittee has made a request for this, but this office had same prepared some time ago in anticipation of such a request.

SALARIES AND WAGES.

Mr. ANTHONY. General, you are asking for \$1,398,806 for salaries and wages. Signal Service. I presume that covers personnel entirely?

Gen. SQUIER. Yes, sir.

Mr. ANTHONY. What is the reason for the large increase in the amount? Last year your estimate for that purpose was \$622,003.

Gen. SQUIER. We have an analysis of that in all details.

COMMERCIAL TELEPHONE SERVICE.

Mr. ANTHONY. What is the argument for increasing it 100 per cent for the next fiscal year?

Gen. SQUIER. The large item is the commercial telephone service. We now have taken over, or we took over a couple of years ago the

auditing and payment of all telephone bills of the War Department which is one of the largest departments of our office.

Mr. ANTHONY. How was that work formerly done?

Gen. SQUIER. By the Quartermaster General's Department.

Mr. ANTHONY. Did it formerly cost the Quartermaster Department anything near that large amount of money that you are asking—over \$600,000?

Gen. SQUIER. I do not know. We have only had this a couple of years. For years and years that was always attended to over there and some one discovered that perhaps we were specialists, and as there are a large number of leased wires that require traffic studies logically it has come to us, and now it is about the largest thing we handle.

COST OF AUDITING TELEPHONE ACCOUNTS.

Mr. ANTHONY. You have charge of and pay for the use of telephones here in Washington?

Gen. SQUIER. Yes.

Mr. ANTHONY. In all offices of the War Department?

Gen. SQUIER. Not in the War Department itself. The War Department has a special arrangement. That is always separate. But we contract for all the leased lines and pay for all the telephone service in the whole Army at large, and the auditing is, of course, a serious matter, and one of the largest departments of our office is engaged on that and has nothing else to do at all.

Mr. ANTHONY. Can you put in the record the actual amount paid for that?

Gen. SQUIER. Yes, sir; we can tell you what the personnel is and every detail about it.

Mr. ANTHONY. We would like to know the cost of auditing these figures.

NOTE.—There are 50 people engaged at an annual cost of \$76,120.

Gen. SQUIER. Yes, sir. I would like to say a word about the telephone service. The war created an extravagant situation. War is probably the most extravagant thing ever invented. I think it would be interesting, if you have the time, to hear the details in connection with a campaign we have been putting through to cut off this indiscriminate use of telephones. It was necessary in war of course. I am not criticizing that, but it is pretty hard to get out of a habit we have gotten into. During the last year we have gone after that in all the different departments in order to cut off unnecessary telephoning, which was a war habit. We have resorted to the most drastic methods. We pitted one department against another in order to make a record. Still it is going on, but we are after it constantly in order to cut down the use of the leased lines.

The Ordnance Department used a number of leased lines, and also the Quartermaster Department. Naturally it is hard to make them give up these lines. They got in the habit of calling up anybody all over the country, and I am not blaming them for that. It was necessary in war, but very hard to get away from in peace. We have been at this reduction in season and out of season.

Mr. CRAMTON. Is there any assistance we can give you?

Gen. SQUIER. I realize we have got to keep right after it to cut down the expense.

There is another point right here that I want to refer to. You might say, "Why do you not use soldiers for a lot of this auditing," and so on. Take the case of the New York office. You will go into that office and see a lot of clerks paying telephone bills or auditing telephone bills. They are performing the same sort of work that the telephone people do. We hire the same kind of people and pay them the same as the local company is paying. We check that up. The work is not suitable duty for a soldier. It is essentially a civil thing and very likely will have to stay that way. I would rather have soldiers, as far as possible in our work. During the war we could put soldiers on some of this work, but there is a limit beyond which you can not go with soldiers.

For instance, take the telephone switchboard. It has been found to be a psychological fact that a grown man is not suited to operate a switchboard. He will do very well at the front, but we hire women for that purpose here. The world has found out that a woman does that work better. We do not use men for that purpose, except at the front lines where women can not go. It is much better at the camps to hire women operators. We could push soldiers into that work to a certain extent, but I am not for it because it has proved not to be the most advantageous thing to do. Of course, during the war we did send women to the front to operate telephone lines, clear up to corps headquarters, and that was one of the greatest successes we had. We were advised not to send women to France, but it turned out to be a great success, and a number of those women were decorated.

ACTUAL SALARIES FOR SIGNAL SERVICE.

Mr. ANTHONY. Of that item of \$1,398,806 for salaries and wages, Signal Service, how much of that do you intend to use purely for purposes of the Signal Corps? That is to say, taking the salaries of the telephone operators over the country and the cost of auditing these telephone charges and the contracts, how much are you estimating for salaries of civilian employees for the operations of the Signal Corps proper?

Gen. SQUIER. That is \$866,274.

Mr. ANTHONY. In analyzing the appropriations made in 1920, there was originally allotted out of that appropriation \$143,491 for salaries and wages?

Gen. SQUIER. Yes, sir.

Mr. ANTHONY. You actually expended that year, I take it, \$138,000?

Gen. SQUIER. Yes, sir.

Mr. ANTHONY. That was because of all this additional expense being put on the Signal Corps?

Gen. SQUIER. Yes, sir.

RADIO ENGINEERS.

Mr. ANTHONY. Two years later than the time of that estimate, when you were allotted \$143,491, you are asking for approximately \$500,000 to cover the actual expenses of the salaries for the opera-

tions of the Signal Corps, aside from these other activities. Is not that rather a large increase in the last two years?

Gen. SQUIER. This is the reason for it. As I look down the list, let me pick out the big things. First, the item of research and development, \$229,140.

Mr. ANTHONY. What class of civilian employees are they?

Gen. SQUIER. That is a type that in this transition period is not yet an officer, but ultimately he will be an officer. He is a type of radio engineer, a young man 25 or 26 years of age who was in the war and was discharged, very likely, and is now held on pending the education of our own officers, but will finally disappear. We are holding him on in the research peak we are now passing through. That man we have to pay in competition with everybody else who is after him, I should not say more than officer would draw, including his allowances, although perhaps it might be a little more.

Mr. ANTHONY. What do you call him, an electrical engineer?

Gen. SQUIER. A radio engineer or assistant radio engineer.

Mr. ANTHONY. How many men of that class have you whom you call radio or assistant radio engineers; that is, civilians?

Gen. SQUIER. I should say, including all the five laboratories—we give these people a variety of names—that there are about 52 in total, including all kinds.

Mr. ANTHONY. They are practically the same class of men as the Air Service told us about that they require at their engineering development plant. They said they had over 200 aeronautical engineers, civilian employees. You have about 52 men of that class employed?

Gen. SQUIER. Yes.

Mr. ANTHONY. These men in your corps are engaged constantly in development and research?

Gen. SQUIER. Absolutely. I consider that, due to the present hump I told you about, the wisest thing we can do is to keep this up until our officers were ready.

Mr. ANTHONY. Are you not paralleling the same line of work that is being carried on at the big electrical plants?

Gen. SQUIER. No, sir; we are not.

Mr. ANTHONY. Does not the General Electric Co. maintain a research corps of men?

Gen. SQUIER. Yes, sir; much larger than our own.

Mr. ANTHONY. Do not nearly all of the colleges and universities do that kind of work?

Gen. SQUIER. We are all doing it, and yet there is not enough of it being done. We are in constant touch with those great enterprises.

Mr. ANTHONY. Before the war how many men of that class did you have?

Gen. SQUIER. Perhaps a dozen, or something like that. It was very small. But our liaison with all those outside agencies is very good now. I doubt if it could be improved. There is not a day that some of them are not here, and we are keeping the pace pretty well. They are down here to keep posted on what we are doing. I happen to know that the American Telephone & Telegraph Co., the Bell system, have a total item for a research department amounting to approximately \$9,000,000 for the present year.

CIVILIAN EMPLOYEES.

Mr. ANTHONY. Is that item for civilian employees a fixed one, regardless of the size of the Army?

Gen. SQUIER. Yes, sir.

Mr. ANTHONY. Whether it would be 280,000, as is now planned by the War Department, or 175,000, as possibly may be fixed by Congress?

Gen. SQUIER. It has nothing whatever to do with the size of the Army. It is keeping the American Signal Corps ahead of the world.

Mr. ANTHONY. Do you employ many civilian mechanics?

Gen. SQUIER. Comparatively few; such as foremen, perhaps. We have five of those places where that work is going on.

Mr. ANTHONY. When your organizations are in the field the operating and all the other work is done by the enlisted force?

Gen. SQUIER. Oh, yes. They have all been instructed at our school to do all those things. That is why we educate the men in our school to make them into that kind of specialists.

Mr. ANTHONY. You have been carrying on that work at much less cost during the last year or two than you are asking for in this item.

Gen. SQUIER. Last year——

Mr. ANTHONY. What did you expend for that purpose last year?

Capt. ALBRO. You mean the current year's appropriation for civilian employees?

Mr. ANTHONY. The first item, for salaries and wages.

Capt. ALBRO. The total figure during the current fiscal year will run to \$1,200,000 and odd for civilian personnel. There are 996 civilians covered by that.

Mr. ANTHONY. If you were forced to economize, what is the very lowest notch that could be cut and the activities of the corps be reasonably carried on?

Gen. SQUIER. I would cut somewhere else. I would not cut in that department at this time. If you want my own opinion about it, I would rather stop some other activity, for the reason I have explained. In 1920 the six-hundred and some odd thousand dollars was exclusive of the civilian personnel engaged in the commercial telephone work.

Gen. LORD. The total expenses, from the books for 1920, for civilian personnel and telephone-exchange service of the Signal Corps was \$1,291,646.54.

ENGINEERING AND RESEARCH—AIR SERVICE—LAND FORCES.

Mr. ANTHONY. The next item is for engineering and research work (exclusive of personnel). That personnel is taken care of in the preceding item. The first part of that item is for the air service. What do you mean by that?

Gen. SQUIER. I mean for air service by the Signal Corps.

Mr. ANTHONY. You mean radio by air?

Gen. SQUIER. Yes; that is the form of communication used by aircraft.

Mr. ANTHONY. The second part of that item is for land forces.

Gen. SQUIER. It is divided that way because it was thought better to segregate it in that form.

Mr. ANTHONY. You are asking for the air service, or radio, \$212,243.74, and for the land forces, \$254,692.49, making a total for engineering and research work of \$466,936.23. What were the amounts which have been allotted to you under the current appropriation?

Capt. ALBRO. \$353,000.

Mr. ANTHONY. That is the total?

Capt. ALBRO. Yes, sir.

Mr. ANTHONY. Why are you asking for that increase in this bill?

Gen. SQUIER. The air-service element of that increase will be defended by Col. Culver. We are merely the servants of the air service.

Mr. ANTHONY. The object of the increase is to provide this increased amount of research in radio?

Gen. SQUIER. Yes, sir. At this point I would like to say that I have Col. Mauborgne here, who is in charge of that research work and he can tell you in complete detail what we are doing and what we propose to do. He can go into as much detail in regard to that as you care to have him go into.

Mr. ANTHONY. We will take up the details later.

Gen. SQUIER. I would like to say one other thing. We have to have a certain leeway in research. No human being can name exactly the things that might come up during the year, and judgment has to vest somewhere; if some new thing comes along some one must have authority to take it up, if it is important.

MISCELLANEOUS EXPENSES AND EMERGENCY PURCHASES, HAWAIIAN AND PHILIPPINE DEPARTMENTS.

Mr. ANTHONY. Your next item is for miscellaneous expenses and emergency purchases, Hawaiian and Philippine departments.

Gen. SQUIER. That is the same as last year.

Mr. ANTHONY. You are asking for \$25,000. You have a column in your estimate headed "Amounts extremely desirable, but not absolutely essential." How do you interpret the items in that column? Does that mean that you could get along with \$5,000 for this item? I notice you have \$5,000 for this item under that heading.

Capt. ALBRO. Of the total of \$30,000 asked for in the column headed "Original estimates" \$5,000 has been eliminated as not absolutely essential but extremely desirable, and \$25,000 is absolutely essential. That has been the amount expended for the past two years.

Mr. ANTHONY. That means \$5,000 could be eliminated?

Gen. SQUIER. Yes, sir. It is our understanding that this year your committee wants to pare everything down to the lowest that we can get along on and do anything with, and we are trying to cooperate with you in every way we can.

Mr. ANTHONY. What are the miscellaneous expenses?

Gen. SQUIER. The same as they have been for years.

Mr. ANTHONY. What do they consist of?

Gen. SQUIER. This amount has been a constant for the past four years and no reduction therein can be seen in the future.

Increased installations of post telephones and telegraph system mean increased maintenance costs, which in turn mean an increase

in emergency purchases, and incidental expenses in connection with the operation and maintenance of these systems.

Increased signal equipment means increased repair costs, which naturally can be made much cheaper locally than by returning the equipment to the United States, to say nothing of the saving of time.

In this item is also included any expenses on account of radio equipment of Army transports which may be incurred in the Hawaiian or Philippine departments.

Photographic, pigeon and meteorological activities also require local purchases in many instances and they have increased in extent considerably during the past four years. Temporary labor is also paid from this item.

The distance of these areas from the source of supply naturally renders such an item of vital importance in making the activities of the Signal Corps as efficient as possible.

Mr. ANTHONY. They are constantly increasing the military plant in both Hawaii and the Philippines?

Gen. SQUIER. Yes, sir.

SIGNAL EQUIPMENT FOR ORGANIZATIONS FOR THE AIR SERVICE AND FOR LAND FORCES.

Mr. ANTHONY. Your next item is for signal equipment for organization for the Air Service and for land forces. You are asking for \$1,626,648.04 for the Air Service and \$3,735,489.86 for the land forces, a total of \$5,362,137.90?

Gen. SQUIER. Yes, sir.

Mr. ANTHONY. That is for the purchase of new equipment?

Gen. SQUIER. Minus what we have on hand, and it has been made after a careful estimate of the size of the army proposed, a seven-division army, as we were directed to estimate for.

Mr. ANTHONY. Could you function for another year without purchasing any equipment?

Gen. SQUIER. No, sir; it would not be safe. The equipment is not efficient. It is what was left over from the French equipment and other war material. I am going slow in buying new equipment because it is not stabilized. This estimate is to get apparatus that does not go out of date, and certainly we must do something. We have used the old equipment, because the Army was not fully recruited anyway.

Mr. CRAMTON. What effect would a reduction in the size of the Army have on that item?

Gen. SQUIER. Very little. It does not matter whether a brigade has only three men in it, the equipment is the same, as far as the Signal Corps is concerned. Our work has to be done whether a division has 10,000 or 25,000 men, and my responsibility is to see that that equipment shall be on hand for the enlarged Army whenever we get in trouble. The peculiar thing about it is that we do not function with the number of men at all. We are a function of the number of divisions, and if you decide to cut down the number of divisions you can simply cut our item down in proportion.

Mr. ANTHONY. How much new equipment will you purchase during the current fiscal year?

Capt. ALBRO. During the current fiscal year we will be unable to purchase in excess of \$600,000 worth of new equipment, and that is confined to storage batteries and dry batteries to operate the sets we already have, with the exception of possibly some small sets which are not radio. We hope, however, in some way to get enough money to buy one lot of 100 radio telephone sets. Every arm of the service is clamoring for these sets, and they have proved absolutely essential, provided we can find the necessary money in the current appropriation by squeezing it out somewhere else.

Mr. ANTHONY. What do they cost per set?

Capt. ALBRO. \$800 a set.

Mr. ANTHONY. You hope to buy them this year?

Capt. ALBRO. One hundred of them; yes, sir.

PIGEON SERVICE.

Mr. ANTHONY. Your next item is for the pigeon service for the Army, and you are asking \$35,000 for that item. How much will you expend during the current year?

Capt. ALBRO. \$35,000 is the minimum we can operate on.

Gen. SQUIER. The pigeon service is concentrated at Camp Alfred Vail to save overhead.

Mr. ANTHONY. How many pigeons do you maintain?

Capt. ALBRO. About 500, including 200 young birds.

Mr. ANTHONY. How many officers and how many men are detailed that way?

Gen. SQUIER. Very few; I think only three or four.

Capt. ALBRO. We have no officers at present.

Mr. ANTHONY. You used to have an officer in charge of the pigeon work?

Gen. SQUIER. We normally have two. But we are discharging everybody. The service is very small.

Mr. ANTHONY. Do you think it is necessary to maintain a lot of trained pigeons for use in emergencies?

Gen. SQUIER. Yes, sir; I think it is, and we are making money on it. I suppose if we were to sell our pigeons now they would be worth much more than we paid for them.

Mr. ANTHONY. Do you sell your surplus?

Capt. ALBRO. We can not do that under the law.

Mr. ANTHONY. What do you do with the surplus pigeons that accumulate?

Gen. SQUIER. We train the good birds by trying them out, and the others—

Mr. ANTHONY. They find their way to the stewpan I suppose?

Gen. SQUIER. Very likely. When we breed pigeons we do not know whether they are good or not.

Mr. ANTHONY. Only a few of them are good ones?

Gen. SQUIER. Yes, sir; and I want to say we are making money fast on that.

Mr. ANTHONY. How do you make money?

Gen. SQUIER. I mean we could make money. We are not allowed to under the law. The value of the pigeons is very great.

Mr. ANTHONY. A trained pigeon has value?

Gen. SQUIER. Yes, sir.

Mr. ANTHONY. What was expended for purchase of pigeons last year?

Capt. ALBRO. There were no pigeons purchased. The expenditure for miscellaneous pigeon material was \$3,514.04.

Gen. SQUIER. We do not buy pigeons. We sent to Europe and got the best pigeon man we could possibly get, and we sent him to England to secure a good strain of these pigeons. He bought us some of the best pigeons in the world there and in Belgium. We breed them now ourselves. If we could sell them, we would make money. I think the pigeon service is absolutely essential.

Mr. ANTHONY. Which would be the most effective communication, radio or the pigeon service?

Gen. SQUIER. It depends on circumstances; sometimes the pigeon is the only one which can get through.

Mr. ANTHONY. Do you maintain any dogs now?

Gen. SQUIER. We have some in Alaska.

Mr. ANTHONY. What success did you have in the development of the dog as an information carrier?

Gen. SQUIER. We have not had any experience along that line. I do not know to what extent the other branches of the Army did that.

Mr. ANTHONY. You bought a large number of Airedales during the war, did you not?

Gen. SQUIER. Not the Signal Corps; perhaps the Infantry did. We have some good dog teams in Alaska.

Capt. ALBRO. In regard to the development of pigeons I might say that out of the 200 youngsters at Camp Alfred Vail this year which have been successfully trained, in the trial flights against birds that have been raised in other places, their average time of return has always been the better.

DETAILS OF ESTIMATE.

Mr. CRAMTON. What makes up the \$35,000 of your estimate?

Capt. ALBRO. Expenses in connection with the home lofts at Camp Alfred Vail, \$18,000; expenses in connection with lofts at corps and department headquarters, \$9,000; expenses in connection with lofts at aviation fields, \$4,000; and general training expenses, which include the salary of a civilian pigeonier at \$2,700, \$4,000, making a total of \$35,000.

Gen. SQUIER. In due time that man will be an officer.

Mr. ANTHONY. Are you going to make a pigeon organization in each corps area?

Gen. SQUIER. Yes, sir.

Mr. ANTHONY. The same as in the case of other Signal Corps communication?

Gen. SQUIER. Yes, sir; the pigeon is absolutely essential.

Mr. ANTHONY. In time of peace could you not dispense with that?

Gen. SQUIER. Why not have it? We have the pigeons.

Mr. ANTHONY. But it costs money, even though it is a small amount.

Gen. SQUIER. I do not think we would be safe if we did not develop it.

Mr. ANTHONY. Why could you not just maintain a home establishment and experiment with that without going to the expense of maintaining complete equipment all over the country?

Gen. SQUIER. I think the case of the Corpus Christi flood the other day will give you a good example of the possibilities of these birds. A pigeon was the only messenger or method of communication to get through. There have been airplanes lost two or three times. The pigeon has been the only thing that has gotten through and given the alarm.

Mr. ANTHONY. Has that been one of your pigeons?

Gen. SQUIER. Yes, sir. There is a case in my annual report in reference to a town which was more or less saved after a number of hours by a pigeon that was released and got through.

The estimate of \$35,000 for the pigeon service of the Army is based upon the expenditures of the current year, which have been strictly on a peace-time basis.

The Signal Corps has what is in all probability the finest strain of carrier pigeons anywhere to be found. Young birds hatched this year from this collection have shown exceptional merit. Only continued breeding and training can keep this collection up to its present efficient standard.

The home loft is stationed at Camp Alfred Vail. Other lofts are maintained at various corps headquarters and aviation fields, but the more extensive ones of these are located in the Eighth Corps Area and at the Hawaiian, Philippine, and Panama Canal Departments, where very important services are rendered by the pigeons.

METEOROLOGICAL SERVICE.

Mr. ANTHONY. Your next item is for the meteorological service for the Army, and you are asking for that item \$178,594.62?

Gen. SQUIER. Yes, sir.

Mr. ANTHONY. What did you expend for that purpose during the current fiscal year?

Capt. ALBRO. The expenditure for that purpose will not exceed \$15,000, because we have not the money that should be expended in that department.

COOPERATION WITH WEATHER BUREAU.

Mr. ANTHONY. Does not this work parallel other meteorological activities of the Government?

Gen. SQUIER. I am glad you asked that question. It does not, Mr. Chairman. We are working very closely with—in fact, our personnel comes from—the Weather Bureau. Maj. Blair, one of the best forecasters in the world, was put in the Army, and we are not duplicating any of the work done by the Weather Bureau. We are not in competition with them, but work in cooperation with them. We furnish our data to the Weather Bureau twice a day, and it is used in the weather map daily.

DUTIES.

Mr. ANTHONY. Why can not the Weather Bureau furnish you with that information?

Gen. SQUIER. Because the kind of information we want is not at all the kind the Weather Bureau is prepared to produce. We want the "ballistic wind"; the artilleryman has to have a certain kind of data which the Weather Bureau does not get at all. It would mean putting at all of our military posts civilian people belonging to the Weather Bureau, and it would also include the problem of overhead, the cost of taking care of them and giving them a piece of land with a building on it. These people have to go with the Army, anyway.

Mr. ANTHONY. Why can not a trained artilleryman calculate all the variable elements you will find right on the field, where he is going to do his Artillery firing?

Gen. SQUIER. The observations have to be taken right there.

Mr. ANTHONY. Has he not instruments by which he can calculate the velocity of the wind?

Gen. SQUIER. We have a standard set of observations taken now, including upper-air observations with balloons. The balloon observations are taken every day, and from them is computed the data that is wanted. The artilleryman could do it if he had some one to take the data, but since we are there to take the data anyway we furnish him the "ballistic wind."

Mr. ANTHONY. This is going to cost \$178,000 to furnish that information to the artilleryman when it would seem to me he ought to be able to determine that himself.

Gen. SQUIER. We would have to buy the whole equipment for them in any event.

Mr. ANTHONY. What does an artilleryman do under battle conditions?

Gen. SQUIER. The meteorological man is right there with him. That is what we did during the war. We had a meteorological service for every corps during the war. The Gas Service has to have certain data. They have to know the wind, so that the gas does not come back on their own people. Meteorology is in the Army to stay.

Mr. ANTHONY. At the time of big operations during a war I can see why it is necessary, but during peace times why is it necessary to carry on such an organization?

Gen. SQUIER. Every time you shoot a gun you have to go through these operations, and this data is very essential to the artillery men.

Mr. ANTHONY. But we have been firing artillery for many years in this country without meteorological experts attached to the artillery.

Gen. SQUIER. Yes; I have been doing it myself. I used to get the weight of a cubic foot of air myself, but the meteorological station is now an essential part of all the armies in the world. To train the people at that station and have the instruments ready is a very important work. Take Fort Monroe, for instance. There are a dozen different meteorological operations.

Mr. ANTHONY. You propose to carry on such an establishment in time of peace?

Gen. SQUIER. Yes, sir; in a small way. The General Staff has authorized and directed us to have 30 more stations. We have only 20 now. We can show you where these stations are and where we propose to put the additional stations. But we have left out the provision for additional stations, assuming that you want to cut

down the amount. But next year, I am such a great believer in the development of meteorology in the Army that I think we must go into the business more thoroughly.

Mr. ANTHONY. One of the chief activities of the General Staff seems to be to suggest new opportunities for expenditure.

Gen. SQUIER. We are directed right now and authorized to set up 30 more stations. I can not set them up because there is not any money, and I am leaving that provision out now because I think this year we want to get the taxes down.

Mr. CRAMTON. We would be glad to have that \$178,000 itemized.

Gen. SQUIER. Yes, sir; we can give that to you, telling you just how much it costs.

Mr. CRAMTON. Give us a statement showing how much is for equipment and how much for personnel.

Gen. SQUIER. None of it is for personnel. You have already provided for the personnel. This is just for equipment. I will give you the cost of each instrument.

The statement is as follows:

Maintenance and replacement of equipment.....	\$24,084.62
Balloons, gas, and expendable supplies.....	65,910.00
10 temporary field stations, including cooperation with National Guard.....	38,600.00
Meteorological school and calibrating laboratory expenses.....	50,000.00
	<hr/>
	178,594.62

"BALLISTIC WIND."

We send up balloons every day and furnish the upper-air data.

Mr. CRAMTON. If this is all for instruments, those would have to be furnished, whoever took the observations?

Gen. SQUIER. Yes, sir. So, why not have a man there to do it?

Mr. ANTHONY. Does not the artilleryman have certain comparatively simple instruments for determining windage?

Gen. SQUIER. Yes, sir; but he did not have the kind of data he wanted. He never had the "ballistic wind" until recently, because there never were any upper-air observations.

Mr. CRAMTON. Of course, the immense increase in range makes it the more important?

Gen. SQUIER. A thousand-pound projectile starts to rise; its velocity is great in the early part of its flight and then it is retarded by the air and finally it falls. It has been affected by the wind in various kinds of waves. Near the earth it is heavy air, so we have to take observation with a considerable number of instruments.

Mr. CRAMTON. The effective range at present is so much greater than it was a few years ago that it involves more intricate scientific data?

Gen. SQUIER. Yes. I was an artillery man for years and we did not know what a "ballistic wind" was. All we did was to get the weight of a cubic foot of air at the earth's surface. Of course, the Air Service also has to have meteorological information.

Mr. ANTHONY. Did you furnish data to the fliers?

Gen. SQUIER. To everybody in the Army. We have a map which will show you the stations. I wish to go on record as a believer in the future of meteorology in the Army.

Mr. CRAMTON. In reference to these instruments that you are buying, are they standard, more or less permanent?

Gen. SQUIER. Absolutely.

Mr. CRAMTON. And they will not be antiquated?

Gen. SQUIER. It is the best we know of to-day. The very best people are working on it, and the chief is one of the best forecasters in the world.

PHOTOGRAPHIC AND MOTION-PICTURE SERVICE.

Mr. ANTHONY. Your next item is for a photographic and cinematographic service for the Army, and you are asking for \$184,668.78 for that purpose. How much will you expend from the current appropriation for that purpose?

Capt. ALBRO. In the present year?

Mr. ANTHONY. Yes.

Capt. ALBRO. During the present year there will be expended about \$100,000. The additional amount asked for next year is \$3,800 for the preparation of the additional and necessary reels for the set known as the "Training of a Soldier," used in the training of recruits throughout the entire Army.

Mr. ANTHONY. For instruction purposes?

Capt. ALBRO. Yes, sir. That is a new method of instruction which is coming into use.

Gen. SQUIER. Let me say a word about the photography.

Mr. ANTHONY. Is that the cinema?

Gen. SQUIER. Yes, sir. We teach people now with the cinema more in an hour than you could teach them in weeks with a book or by the use of blue prints. You can teach a man all about the workings of shrapnel, for instance. You can show the whole intricate mechanism, and explain in detail how it works.

CIVILIAN FORCE.

In regard to photography, I would like to explain to the committee that the photographic force is civilian. We are not allowed to use soldiers in the District of Columbia. When the armistice came the whole Army was discharged and we had to practically shut down on that work. We had spent three months in classifying these wonderful films we got in the war. Congress appropriated \$80,000 or \$90,000 in order to build a fireproof building in which to keep these priceless records, with the pictorial history of the war. This particular item will disappear in a year as I think in that time we will have completed it.

Mr. ANTHONY. A good deal of this appropriation will be for the purpose of taking care of the records of the war?

Gen. SQUIER. Yes, sir. That is what I estimate we will probably complete it in another year. We have an itemized list of its cost.

Capt. ALBRO. If we had \$214,361.44 for the main laboratory and \$75,644.26 for the still laboratory for the fiscal year 1922 we could clean it all up.

MOTION PICTURES OF BATTLES.

Mr. ANTHONY. Speaking of the photographic records of the war, did you get many moving-picture records of actual battles?

Gen. SQUIER. Oh, yes; wonderful pictures. Several of our people were killed in that work.

Mr. ANTHONY. How closely were you able to record the actual operations?

Gen. SQUIER. Several of our people were killed taking pictures. Those films are the real thing. Those records are all at home now, and of course they are all of inestimable value. We are developing each reel, cataloging it carefully, getting the history right, making one positive, and then we deposit the original reel back in the vault. We are performing this work with the greatest care, and you can see our building in the War College grounds.

Mr. ANTHONY. Is that in a separate building?

Gen. SQUIER. We have a separate building for the vault and another building for the laboratory. I do not know whether we will get it done next year or not, but this peak thing is more or less temporary.

SALE OF PHOTOGRAPHS TO PUBLIC—PROPAGANDA.

In regard to the photography, you would be interested to know that we are selling photographs to the public—we run a regular sales department and carry on a mail-order business in these photographs. We turn into the Treasury something like \$60,000 a year from these sales.

Mr. ANTHONY. That is from the sale of photographs made by the Signal Corps?

Gen. SQUIER. Yes. We charge 15 cents apiece for the photographs, and that is one of the wisest pieces of propaganda Congress has ever authorized.

Mr. ANTHONY. What classes of pictures do you sell?

Gen. SQUIER. Official pictures of personnel and movements, of special organizations, all classified.

Mr. ANTHONY. According to that, the photographic work is partially sustained by the sales of the photographs?

Gen. SQUIER. Yes, sir.

Mr. ANTHONY. Will you put in the record a statement showing the amount of money that the photographic operations cost and also the amount that you have turned into the Treasury?

Gen. SQUIER. Yes, sir.

The statement is as follows:

The expenses of the photographic section of the Signal Corps for the fiscal year 1920 amounted to \$162,388.00, of which \$82,388.00 was for civilian personnel and \$80,000 for supplies and equipment used in the laboratories and issued to troops in the field.

For the first half of the fiscal year 1921 the expenses have amounted to \$56,808.89, of which \$37,330 has been for civilian personnel and \$19,478.89 for supplies and equipment used in the laboratories and issued to troops in the field.

During the period above specified, the receipts from sales of still and motion pictures, which receipts have been turned into the Treasury, amounted to \$89,208.89.

In addition thereto, there has been furnished for instruction and other purposes approximately \$90,000 worth of motion-film and still pictures for which no reimbursement has been secured.

Gen. SQUIER. I would rather have soldiers at this work, but we are not allowed to use them for that purpose in the District of Columbia.

Mr. ANTHONY. What is the reason for that rule, because there is no place to quarter soldiers? That is the primary reason, is it not?

Gen. SQUIER. Yes; I think so. We did have soldiers during the war, but for some reason we can not put a soldier on that duty now.

Gen. LORD. That is according to law.

Gen. SQUIER. The Signal Corps files of negatives comprise the greatest photographic feat ever performed.

COMMERCIAL TELEGRAPH AND TELEPHONE SERVICE.

Mr. ANTHONY. The next item is for commercial telegraph and telephone service for the Army, for which you are asking \$1,461,791.31.

Capt. ALBRO. And from which we request that there be eliminated the sum of \$253,258, which is already contained in item 1, and which was entered in this item because of an error in submitting the data to the finance officer of the Signal Corps.

Gen. SQUIER. We found that the man in New York did not obey his instructions, so that there is a duplication to that extent, and we ask you to reduce it.

It covers personnel which was included in item "1" and should not be in the item.

The amount asked for, Mr. Chairman, is to pay the entire telephone bill of the Army, and it is not for the Signal Corps alone.

CURRENT EXPENDITURES.

Mr. ANTHONY. What did you expend for that purpose during the current year?

Capt. ALBRO. The current fiscal year will run about \$200,000 more than the amount asked for in this budget.

Gen. SQUIER. The amount is not coming down fast enough to suit us yet. It is a very hard matter to get them to give up or stop using telephones. Every time you take a telephone out from anywhere there is a protest. We just take them out anyway. As an example, I have taken the telephone out of my office.

Mr. ANTHONY. This covers the cost of the telephone service everywhere?

Gen. SQUIER. In the whole Army.

Mr. ANTHONY. In the Coast Artillery?

Gen. SQUIER. Everything; all the arsenals, the depots, and every other place. My annual report gives a list of those plants, including every ordnance depot and every Army activity in the United States.

Mr. ANTHONY. That has increased tenfold in the last five or six years?

Gen. SQUIER. I presume it has. We stopped writing letters during the war and everybody used those lines. But we are going after it, with the cooperation of the Chief of Staff.

Mr. ANTHONY. Does this estimate include anything for the purchase of local telephone lines?

Gen. SQUIER. No, sir; we cut that out this year.

Capt. ALBRO. You will find under the heading of "Amounts extremely desirable but not absolutely essential," in item 8. \$400,000

which was included for the purpose of purchasing these leased systems, but that portion was decided to be properly classified in the column of "not absolutely essential," and it has been eliminated.

Mr. ANTHONY. In regard to these extremely desirable items, is that \$400,000 included in the other sum?

Capt. ALBRO. No, sir; it has been taken out.

Gen. SQUIER. We are not asking anything for purchase now.

Mr. ANTHONY. The amounts in the last column are absolutely net?

Gen. SQUIER. Yes, sir. They have been subtracted. The sheet you have simply gives you the history. The final figure is the last one. We have subtracted the \$253,000 duplication referred to above.

Mr. ANTHONY. Do you pay for the individual telephone service for each officer at every post in the Army?

Gen. SQUIER. No, sir; his personal telephone is charged up to his account.

Mr. ANTHONY. For instance, the telephone in the officer's quarters is paid for by the officer himself?

Gen. SQUIER. Yes, sir; when he has a connection with the outside.

Mr. ANTHONY. They all have connections with the outside through the exchange and the post, do they not?

Gen. SQUIER. But we do not pay for any officer's unlimited telephone service in this country. Otherwise he would start telephoning all over the country to everybody he knows.

Mr. ANTHONY. Just as a matter of information, take the post at Fort Leavenworth. Each officer has a telephone in his quarters.

Gen. SQUIER. Yes, sir.

Mr. ANTHONY. That telephone installation cost was paid for by the Government; the telephone was installed by the Government?

Gen. SQUIER. Yes, sir.

Mr. ANTHONY. But if the officer uses the service outside of the post he has to pay for that?

Gen. SQUIER. Yes, sir.

Mr. ANTHONY. How is that regulated?

Gen. SQUIER. A bill is sent to him.

Mr. ANTHONY. The Government has a contract for outside connections?

Gen. SQUIER. Yes, sir. We make them connect our trunks with the outside lines. They used to insist that they would not do it, that we could not put in good enough equipment on the post, but we would not stand for that, and we make the telephone people connect up our exchanges with the outside lines. For a long while they would not admit that we could do it properly.

Mr. ANTHONY. They are supposed to get enough revenue out of it to pay for the connection?

Gen. SQUIER. Yes, sir.

Mr. ANTHONY. I know there was at one time a dispute about the telephone companies furnishing those connections.

Gen. SQUIER. There is a dispute on now. Mr. Vail is dead now, and they do not seem to look at the matter in as large a way as they ought to. Of course we ought to be connected with the outside. The idea that a public utility company should not connect up with an Army post is ridiculous. Every little while there is a reversal of policy.

Mr. ANTHONY. That big bill for commercial telephone expense for the Army is due to the tremendous plant we set up during the war?

Gen. SQUIER. It is. It includes all of the camps. They are included in there, and if you would abandon some of the camps we will take out the installation; whenever you desire a camp shall go we will cut out that equipment.

TRAINING OF SIGNAL-CORPS TROOPS.

Mr. ANTHONY. The next item is for training Signal Corps troops, enlisted specialists, and officers, for which you are asking \$50,000. What was expended this year?

Capt. ALBRO. \$30,000.

Mr. ANTHONY. Why is that increase necessary?

PRINTING.

Capt. ALBRO. The increase covers the desire to print training literature for the instruction of the Regular Army and the National Guard, based upon the developments of the war. Up to the present time we have not had money to print the pamphlets that we want to print.

Mr. ANTHONY. Is this the item out of which you do printing for the Signal Corps?

Capt. ALBRO. No, sir; this merely covers the printing for training.

Gen. SQUIER. The training section gets out a lot of little manuals, which are issued to troops and sold to the public.

Mr. ANTHONY. Where will that printing be done?

Gen. SQUIER. At the Government printing plant.

Mr. ANTHONY. You are expending \$30,000 for that purpose during the present year?

Gen. SQUIER. Not for printing.

Mr. ANTHONY. What proportion was for printing and how much for other things?

Capt. ALBRO. Of the \$30,000 there will probably be about \$8,000 for printing.

This is the way the item was divided in the original estimates: Incidental expenses for training Signal Corps organizations in 9 infantry divisions, 3 cavalry divisions, and in the Panama Canal, Hawaiian, and Philippine Departments, at \$300 per division or department, \$4,500; incidental expenses for training 1 corps Signal battalion, \$600; 15 division and department schools for instruction of officers and enlisted men of other combatant arms in signal communication, at \$300 per school, \$4,500; for tuition, laboratory fees, textbooks, etc., for officers detailed as students at civilian technical colleges and universities, \$3,500; for the printing of training literature for the instruction of the Regular Army, National Guard, Officers' Reserve Corps, and Reserve Officers' Training Corps, \$30,000; for the purchase of signaling equipment, including textbooks and books of reference for the training of students at universities and colleges in which are established Signal Corps units of the senior division of the Reserve Officers' Training Corps, \$50,000; making a total of \$93,100. That has been cut to \$50,000

FOREIGN SIGNAL SERVICE EXPENSES.

Mr. ANTHONY. Your next item is for foreign Signal Service expenses, and for that you are asking for \$21,224.37.

Gen. SQUIER. That is, of course, for our service abroad. Of course, we have got to give some leeway.

EXPENSES OF ARMY IN GERMANY.

Mr. ANTHONY. Are these expenses in connection with the Army of Occupation in Germany?

Gen. SQUIER. Yes, sir.

Mr. ANTHONY. Why are they not taken care of under our agreement with Germany to pay the expenses of our Army in Germany?

Gen. SQUIER. I suppose they will be, ultimately.

Mr. ANTHONY. Secretary Baker informed us the other day that the expenses of the Army in Germany are being paid by the Germans.

Gen. SQUIER. If they will only pay up. In the meantime we have to buy things and we have to have the money to pay for them.

Gen. LORD. We pay all our own expenses; we furnish our own money and pay our own troops and buy our own supplies. The money, as it is reimbursed by the German government, goes back to the Treasury as miscellaneous receipts.

Mr. CRAMTON. The other day I asked some gentleman the question and was given the understanding that the bills were rendered and paid there, and then I asked him if the bills were rendered in marks and paid by the Germans in marks, and I was so informed. So there seems to be some misunderstanding about it.

Gen. SQUIER. I am not informed on that. All I know is that we have to pay for it out our appropriation.

Gen. LORD. This is from the annual report of the Chief of Staff, at page 97:

Under the terms of the armistice, Germany is required to pay for the cost of maintaining the American Forces in Germany. The total expenses incurred up to June 30, 1920, amount to \$257,065,084.35.

Mr. ANTHONY. That is for the Army of Occupation?

Gen. LORD. Yes. "Up to the same date the sum of \$32,053,680.29 has been advanced by the German government under the terms of the armistice, and miscellaneous credits on account of Government sales amounted to \$2,670,978.49, so that the net resulting amount owed to the United States Government by the German government for the cost of the Army of Occupation was \$222,340,425.57, at the close of June, 1920."

Mr. ANTHONY. So the statement that the German government is paying all the expenses of the Army of Occupation is not correct?

Gen. LORD. They did owe us at the end of June, 1920, over \$222,000,000.

Mr. ANTHONY. If I remember correctly the Secretary of War stated that each month the German government was paying the amount of the expenses.

Gen. LORD. I have just read you a quotation from the annual report of the Chief of Staff.

Mr. ANTHONY. Can you put in the record a statement showing exactly how those payments are made, and also whether that amount is paid in marks at the present exchange value or whether we have suffered the depreciation of the German money; and show the actual amount in our money that we have received from the German Government. I am sure Congress will want to have an exact statement of the financial transactions with the German Government for the support of our Army in Germany.

Mr. CRAMTON. And also the status of the account as late as possible. Those figures which you just read were of June 30, 1920, and this is six months later.

Gen. LORD. I will get what figures I can up to the latest possible date.

Mr. ANTHONY. And put that in the record complete, so that there will be no misunderstanding about the status of it.

NOTE.—This information appears in Gen. Lord's testimony in connection with the item "Pay of Army."

CORPS AREA INCIDENTAL EXPENSES.

Mr. ANTHONY. Your next item is for corps-area incidental expenses for which you are asking \$25,000. How much was used this year?

Gen. SQUIER. That is a new thing. You take a place like Fort Howard in Maryland; that is new headquarters of a corps. The post was built for another purpose.

Mr. ANTHONY. Why would not those expenses be taken care of under the general Signal Corps expenses of the Army? Are they telephone or telegraph expenses?

Gen. SQUIER. The changes that have to be made are not known. You change a little post like that over into a corps headquarters, and it means a lot of work must be done.

Capt. ALBRO. This has to do with the incidental expenses which require temporary labor or the purchase of some emergency installation because of a storm, or a fire, or an accident. It has amounted thus far to \$1,500 per corps area, or about \$15,000 during the current fiscal year. However, it has been included during the current fiscal year with item No. 17, for miscellaneous expenses and emergency purchases in the corps areas in the United States, which we have installed this year, and I will show you the details under that item when we reach it.

Mr. CRAMTON. Why did your original estimate call for \$50,000 if you are running with about \$15,000 a year?

Capt. ALBRO. Because we figure that with the increased Army the incidental expenses will increase. With a reduced Army we have reduced our estimates.

PRINTING, INCLUDING SIGNAL CORPS FORMS.

Mr. ANTHONY. The next item is for printing, including Signal Corps forms for the Army, and you are asking \$25,000 for that.

Gen. SQUIER. We have been directed now to do our own printing and pay for it, and we have never had to do that before. There has been a new ruling in the matter. We used to draw stationery, and

now we are required to estimate for it ourselves, under the budget idea.

Mr. ANTHONY. That is for stationery?

Capt. ALBRO. Yes, sir. During the current fiscal year the rate of expenditure up to the present time indicates that there will be expended under this item approximately \$5,500.

In the fiscal year, 1922, however, the Signal Corps is requested to estimate for all its printing and stationery, forms, blanks, etc., and it is figured that the amount required will be anywhere from 6 to 10 times that expended during the current year for this same purpose.

All printing is done in accordance with the rules laid down by the Joint Committee on Printing. No printing for training or Reserve Officers' Signal Corps units is included in this item of the estimate.

Gen. SQUIER. Under the idea of the budget system this decision was made requiring us to estimate for our printing.

Mr. ANTHONY. Formerly did not each department of the Army have its stationery printed through the Quartermaster's Department?

Gen. SQUIER. Yes; we used to draw it. Now we are getting back to having each department fix its own figures. In any case, that is the decision.

Mr. ANTHONY. If each department of the Army is allowed to go ahead in its purchase of stationery, will not that tend to extravagance, instead of having all the purchases made through one central bureau?

Gen. SQUIER. The old method was satisfactory to us.

Mr. ANTHONY. This is a change ordered by the General Staff?

Gen. SQUIER. Yes, sir. I am not sure—I would have to look into the matter to know whether it was good or bad.

Gen. LORD. Under the bill as it now stands printing can be provided under the items for the Coast Artillery School, contingencies of the Army, Air Service, regular supplies, Quartermaster's Corps, Medical and Hospital Departments, Engineer School, military service maps, and vocational training.

GASOLINE AND OILS.

Mr. CRAMTON. The next item is for gasoline and oils for Signal Corps vehicles and equipment, and you are asking \$25,000 for that.

Gen. SQUIER. Yes, sir. In accordance with a letter from the Chief of Air Service, under date of August 7, directed to Chief of Finance, and the Chief of Finance's reply thereto, under date of August 24, the Signal Corps has estimated for gasoline and oils to be used in Signal Corps vehicles and Signal Corps charging sets, which are gasoline operated. This figure varies considerably with the amount of training work performed, and although the original estimate was placed at \$100,000 the Signal Corps has been able to reduce the figure for it to \$25,000. Any reduction below this point, however, will seriously hamper the efficiency of the Signal Corps apparatus, and it will result in the deterioration of storage batteries through inability to keep same properly charged at all times. This factor is based upon a number of special Signal Corps vehicles which will be in operation, and the number of charging sets which will require

gasoline and oil for their operations is based upon an average use thereof amounting to two years' continuous operation per day.

In reference to the matter of storage batteries, unless you take care of them they deteriorate in a short time, and as this is a special type of apparatus which pertains only to the Signal Corps, it is the only reason we are in the oil business at all.

Mr. CRAMTON. What is the expenditure for the current year?

Capt. ALBRO. We do not know. The Quartermaster's Department is paying for it.

Gen. LORD. As a matter of explanation, under the reorganization act, which we are now working under for the first time, it was left with the Secretary of War to decide what particular special things are to be assigned to the various bureaus of the War Department for procurement, and necessarily there have been some changes in the prior practice and procedure, so that that may help to explain some of the changes.

NONUNIT SIGNAL CORPS SUPPLIES.

Mr. CRAMTON. The next item is for nonunit Signal Corps supplies. You are asking for an appropriation of \$169,794.79 for that item?

Gen. SQUIER. Yes, sir. These include supplies necessary for various line construction work along the Mexican border and the building of practice lines by various organizations during which they use equipment or material which is not classed as standard unit equipment.

In other words, take the border. We might go to work and build a lot of line that would not fit an army at all, and that is why we call it a nonunit. Unit things are definite standard things and made for the Army. The Signal Corps is called on to do a more or less civil job, running a telegraph system on the Mexican border and building a lot of line to fit the topography of the country.

It also includes maintenance material for post telephone systems and Government-owned telegraph lines, and was based upon the amount expended by the quartermaster for the same purpose during the fiscal year 1920, and was included at the same time with the amount of \$100,000 for the purpose of creating a small reserve of this kind of material so that it would be available for immediate issue when needed. However, such a reserve can not be classed as "absolutely essential," and the amount finally submitted as being "absolutely essential" was \$200,000, which has been reduced in the "approved estimate" to \$169,794.99.

Mr. CRAMTON. How is that itemized, roughly?

Capt. ALBRO. It is practically impossible to itemize it, due to the fact that it is fluid equipment. It may be a lot of wire, cable, or poles this year, or it may be transformers or something else next year.

Mr. CRAMTON. You made reference to a comparison with figures for the current year. Do I understand correctly that the \$169,000 is supposed to correspond very closely to the expenditure for the current year?

Capt. ALBRO. No, sir; for 1920.

Mr. CRAMTON. Have you any estimate as to the current year?

Capt. ALBRO. No, sir.

Gen. SQUIER. To illustrate this nonunit idea, suppose we had to handle again a Dayton flood. The Army would have to build a line; all sorts of things that had no relation to the Army at all would have to be used, but the Signal Corps would be ordered out there to do it.

Mr. CRAMTON. Would you not think there ought to be some lessening in that item as compared with the item for 1920? Your expenditure on the Mexican border ought not to be as extensive. We hope it will not be.

Gen. SQUIER. We hope so, too. The only thing we can estimate from is what it has been. We have to meet a good deal of demand for these nonunit things. They are not of much use otherwise.

Mr. CRAMTON. It is a sort of emergency fund. If everything should be equipped on the Mexican border——

Gen. SQUIER (interposing). We probably would not need it.

Capt. ALBRO. We would not need a portion of it. The portion needed for maintenance and repair of Government-owned telegraph and telephone lines already in existence would be unaffected by any change.

Mr. CRAMTON. That is why I think the item might be divided into two or three heads.

Capt. ALBRO. If possible, I will insert in the hearing a division of that item.

The approved division of this amount is as follows:

For nonunit equipment purchased at corps headquarters	\$81, 480. 00
For nonunit material used along the Mexican border	25, 000. 00
For maintenance of Government-owned telegraph and telephone lines and purchase of line-construction material to be used therein	63, 314. 90

Gen. SQUIER. We could make more or less of a guess at it. Next year we will know more about it by checking our guess with the facts.

RADIO INSTALLATION AND MAINTENANCE ON ARMY TRANSPORTS.

Mr. CRAMTON. The next item is for radio installations and maintenance on Army transports, for which you are asking \$75,000.

Gen. SQUIER. That, of course, is for the safety of life. We are charged with installation and operation of radio service on the Army transports on the Pacific and on the Atlantic, and the laws for the safety of life at sea require a certain standard, and particularly in the Pacific we demand the best to be had.

Mr. CRAMTON. How does the amount of that item compare with the amount for 1920 and the amount for the current year?

Capt. ALBRO. In 1920 the Signal Corps expended \$75,000. In the current fiscal year we are going to come as close to that as the appropriation will allow, because of the great necessity for improvements in the equipment.

Mr. CRAMTON. What is the appropriation for the last year?

Capt. ALBRO. I should like to say with regard to this portion of the appropriation that we do not know how much of the Signal Corps item can be used; we are going to give them all we can. For 1922 we repeated the estimate of \$75,000 because up to the time that the complete Signal Corps estimate was forwarded to the director of finance we had received no estimate from the Transportation Service which would cover their needs. However, subsequent to the

submission of that estimate by the Signal Corps, we received, under date of November 9, from the office of the Quartermaster General, a request that we include in our estimate the sum of \$372,000 for new equipment, which they stated would be absolutely essential in 1922. This item, however, is not included in the estimate as submitted to the committee. How we can care for this item is unknown. Whether we have gone too far in not submitting a special estimate to cover this item, I do not know.

Mr. CRAMTON. The Transport Service has decreased need for material since 1920?

Gen. SQUIER. But the radio part has not.

Mr. CRAMTON. But the number is reduced?

Gen. SQUIER. As I understand, it is being reduced. This is an application for service from another department to us.

Mr. CRAMTON. Yes.

Gen. SQUIER. It has 13 transports.

Capt. ALBRO. That is all.

Gen. SQUIER. Thirteen transports are included in the estimate they submitted. When the time comes they turn to us, do nothing more than write to us a letter, telling us what they want, and it is up to us to get it. I feel this responsibility about these Pacific transports, as long as they are going to have the signal corps in charge of that we are going to keep it up to date. I feel in the immense expanse of the Pacific that we must keep these transports equipped with reasonably up-to-date apparatus.

Mr. CRAMTON. In the service on the Pacific transports, what range does that equipment have?

Gen. SQUIER. 3,000 to 5,000 miles.

Mr. CRAMTON. But your transports on the Atlantic are equipped with much less?

Gen. SQUIER. 2,000 to 3,000 miles.

Mr. CRAMTON. Do they generally have that range?

Gen. SQUIER. Yes. You see the range is increasing every week; the efficiency is increasing.

Mr. CRAMTON. I had the impression that in some cases the equipment was such as to give a very much less range than that.

Gen. SQUIER. Yes; but you can not rely on that. There is a certain amount of what I might call freakishness in the radio yet. No man is able to say what the definite range of radio is. In certain sections of the earth you can get long ranges. We found the best place to receive is Bar Harbor, because there is no static up there—no one knows just why, but you can carry it on throughout the year there because of natural conditions. We are contending with static and probably will be able to eliminate its effects in two or three years.

OPERATION AND MAINTENANCE, CAMP ALFRED VAIL.

Mr. CRAMTON. The next is "Operation and maintenance, Camp Alfred Vail, \$183,600."

Gen. SQUIER. I have a full detailed statement that I will file in the record and you can see what they are.

(The statement follows:)

All Signal Corps schools now being located at Camp Alfred Vail, together with the radio laboratories, make necessary that this camp be maintained in as an efficient manner as is possible, in accordance with strictest economy. The item

as submitted to the committee amounts to \$183,600. This amount is composed of the following items:

Repairs and maintenance of school buildings-----	\$31,000
Additional technical equipment necessary for instruction purposes, books of reference, and incidental expenses in connection with the various schools-----	40,000
1 blue-printing machine-----	7,000
The purchase of the post telephone system-----	6,000
Temporary labor, emergency purchases, and miscellaneous expenses in connection with the general maintenance of the camp-----	5,000
Repairs and maintenance of lighting system-----	3,000
Repairs and maintenance of buildings other than school buildings-----	20,000
Repair and maintenance of heating apparatus-----	8,000
Repair and maintenance of fire apparatus-----	1,200
Repair and maintenance of water system-----	1,500
Repair and maintenance of fuel system and water drains-----	2,000
Repair and maintenance of roads-----	4,500
Upkeep of grounds-----	000
Repair and maintenance of hospital buildings-----	2,000
Alterations and betterment of light, heat, water, fuel systems, roads, and buildings-----	40,000

This last item includes replacing quite a number of roofs of the buildings, which have been repaired to such an extent that further repair is throwing money away.

Mr. CRAMTON. That is the school that you have?

Gen. SQUIER. That will be the only school of the Signal Corps.

I should say that under the sundry civil bill we have bought this land now and are starting a building program, and we hope in four years to build this properly. It is now a camp.

Mr. CRAMTON. They are temporary structures, and that involves a repair item?

Gen. SQUIER. Yes. We nearly froze to death last winter, and had to keep a number of fires in stoves. In fact, our schoolrooms were in hangars, heated by stoves, but we decided to have a school anyway, buildings or no buildings. So, of course, the repair rate in those old shacks was high. We must have other buildings this year. The first item to be considered is the building program, which will make that camp the one Signal Corps base.

NUMBER OF STUDENTS.

Mr. CRAMTON. What is the number of men in training?

Gen. SQUIER. One thousand two hundred men in the garrison, the largest place we have.

Mr. CRAMTON. They are practically all in training?

Gen. SQUIER. That is an intensive training school for the enlisted men. Everybody is sent there first.

COURSES OF STUDY.

Mr. CRAMTON. I wonder if you will put in the record the list that you spoke of, of the various courses given?

Gen. SQUIER. Yes, sir; something like 27 or 30 different professions we teach. This training goes so far now that every graduate of the school has a standing promise of a job at the Western Union the minute he presents his diploma, and they come down and lecture to us during the course. We have the best engineers of the country come down to give special lectures, and they promise that any man who has a diploma from Camp Alfred Vail has a job in his pocket when he wants it.

Courses at Signal Corps school for enlisted specialists.

Department of telephone and telegraph engineering—Emergency courses.—Morse operators, telephone and telegraph equipment men, telephone and telegraph linemen, and telephone switchboard operators. Elementary courses.—Telephone and telegraph equipment men, telephone and telegraph linemen, radio specialists, Morse telegraph operators, and radio operators. Advanced courses.—Telephone and telegraph equipment men, telephone and telegraph linemen, telephone and telegraph cable men, Morse telegraph operators, telephone and telegraph testboard and repeater men, cable operators, multiplex telegraph men, multiplex telegraph punchers, and meteorologists. Department of radio engineers.—Radio specialists, radio operators, radio special students, motor mechanics and chauffeurs, and photographers.

CURRENT EXPENSES.

Mr. CRAMPTON. What is the current year's expense at Camp Alfred Vail?

Capt. ALBRO. It all depends on whether or not we are successful in securing the supplemental estimate that we have asked for, and whether the proportionate transfer is made from the maintenance fund of the Quartermaster General to the Signal Corps. This latter phase is being taken up at the present time, owing to the fact that the Signal Corps took over the operation of Camp Alfred Vail under the reorganization bill. We need to spend from \$175,000 to \$180,000 this year at Camp Vail if the money is available. As to the actual expenditures that have been made up to date, I will put that in.

NOTE.—The expenditures for utilities, repairs, and maintenance at Camp Alfred Vail for the first half of the current fiscal year have amounted to \$40,842.

MISCELLANEOUS EXPENSES AND EMERGENCY PURCHASES, CORPS AREAS IN THE UNITED STATES.

Mr. CRAMPTON. The next item is "miscellaneous expenses and emergency purchases, corps areas in the United States, \$174,022.88."

Gen. SQUIER. You will see from that paper, Mr. Crampton, that this item was originally submitted on the basis of the actual expenditures in the six departments, plus those by the Fort Wood and Washington depots of the Signal Corps during the fiscal year ending June 30, 1920.

It is thought that this is a fair basis, because during that year the Signal Corps was practically on a peace basis, and in addition thereto did not purchase any line construction or general technical equipment, because under the regulations in effect at that time these articles were purchased and paid for by the office of Director of Purchase and Storage, now the Quartermaster General. These expenditures, in detail, were as follows:

Eastern Department	\$53,000.00
Northeastern Department	3,400.00
Southern Department	60,000.00
Southeastern Department	10,000.00
Central Department	30,000.00
Western Department	25,000.00
Fort Wood depot	16,000.00
Washington depot	7,580.00

As the amount absolutely essential has been reduced in the approved estimate, this amount of \$204,980 has been reduced to \$174,022.88, a

reduction of 15 per cent; and as the current year's expenditures for the purposes indicated are almost identically at the same rate as those for the fiscal year 1920, it is thought that the basis is sound for the estimate submitted. It is not intended to convey the idea that the rate of the purchase of other supplies peculiar to the Signal Corps will create a deficiency in this particular item of the Signal Corps budget, because in so far as the Signal Corps has been able to estimate for these supplies, it has done so under items 14 and 19 of this budget as submitted.

REDUCTION IN COST OF SUPPLIES.

Mr. CRAMTON. Do you note in the purchase of supplies for this branch of the service any reduction of cost, or any indication of reduced cost?

Gen. SQUIER. We have been looking for it. We have noticed this, Mr. Cramton, which is very encouraging. The technical equipment that the Signal Corps has to buy, particularly in connection with radio, for a number of years has been in a very unsatisfactory state, because it has been made by little concerns here and there and we could not buy anything, even if we gave specific orders, unless we would send somebody up to supervise the making of it. Very recently the General Electric Co., the Bell Telephone Co., and the Radio Corporation of America (Consolidated) have been putting this whole thing on its feet, we hope, from the standpoint of producing what the Army wants, so that we feel very much more comfortable about the future in getting technical supplies than we have for years, because the best people are going into its manufacture. Heretofore we have had a hard time in getting anything made. They would take a contract, yes; but we could not get the apparatus until we sent a man up to live with it and show them how to do it, and then it would be a long while before we could get it. Prices ought to come down; I believe they will. We have not noticed anything yet.

Capt. ALBRO. Cable has come down, but dry batteries have gone up in price in the last year.

Mr. CRAMTON. How is copper?

Capt. ALBRO. That has come down.

AIR SERVICE TELEPHONE EXPENSES.

Mr. CRAMTON. The next is "Air Service telephone expenses, \$248,719.95."

Gen. SQUIER. The Air Service will have to defend that. That is merely a request to us. You understand, Mr. Chairman, that we act merely as a supply agent. They asked for it.

Mr. CRAMTON. Perhaps, Col. Culver, you wish to speak on that.

Col. CULVER. That equipment covers the supply of wire, telephones, and telegraph equipment for field use on the ground. When Air Service units go into the field they are charged with carrying on their own communications within their activities. They connect into the trunk lines of the Signal Corps. Over designated routes the Signal Corps maintain a trunk system, so to speak, and the Air Service is one of those services that connects into it.

Mr. CRAMTON. Just for instance this work that is done in time of peace, just what does the Air Service do with \$248,000 for telephone and telegraph expenses?

Col. CULVER. Except for training purposes there is no material of this class required for field use until the Air Service takes the field. Maneuvers will require the Air Service to go into the field and to handle their internal communications, within the field air-dromes and flying fields and to connect these lines into the nearest switching center of the Signal Corps. This does not pertain to the permanent flying fields or stations of the Air Service.

Mr. CRAMTON. But in the event that you join other branches of the service in maneuvers, you will require this telephone connection?

Col. CULVER. Yes, sir; the field equipment. This is all field equipment.

ITEMS OF ESTIMATE.

Mr. CRAMTON. How do you make up that item of \$248,719.95?

Col. CULVER. For the different units. A squadron or an air park requires telephone equipment amounting to \$500 and telegraph equipment amounting to \$300. A wing or group headquarters requires telephone equipment amounting to \$1,365. I can give you the individual items in detail.

Mr. CRAMTON. Well, I don't know how much detail you mean, Colonel, but I would like the \$248,000 grouped somewhat—its expenditure.

Col. CULVER. For example, the units each require a field switch-board, camp telephones, and wire.

Mr. CRAMTON. That is all very true, Colonel, but you want next year for the Air Service \$248,000?

Col. CULVER. Yes.

Mr. CRAMTON. And I know that you are going to use that for telephone equipment. Now, where is that money going to be expended, and generally speaking how? Not the items, the various instruments that you are going to buy, but where are you going to use it?

Col. CULVER. That is submitted to cover the program of the Air Service as submitted to Congress on the \$60,000,000 basis. I have it by tactical units here; for example, so many observation squadrons and so many pursuit squadrons and other squadrons and wing groups.

Mr. CRAMTON. Is that for the radio telephones?

Col. CULVER. No, sir; that is all for field wire systems for air parks, R. O. T. C. units, squadrons, airship companies, and the schools that are maintained. The equipment for schools is for instruction, so that the personnel may be trained in how to use it in the field.

Mr. CRAMTON. This \$248,000 covers all new equipment?

Col. CULVER. Yes, sir; wire equipment.

Mr. CRAMTON. And it is entirely equipment?

Col. CULVER. Yes, sir. I beg your pardon, there is an item here of 10 per cent maintenance.

Mr. CRAMTON. So that you have approximately \$224,000 for new equipment and \$24,000 for maintenance.

Col. CULVER. Yes, sir. I would like to state in this connection that this item of \$248,719.95 is the item that we are permitted to defend and in the original estimates it was somewhat greater than that amount. In cutting down the Air Service estimate to the \$60,000,000

basis, which the Air Service is permitted to defend, the number of different organizations were reduced, and in cutting the estimate for this equipment accordingly the units which are most expensive in this item were cut down, and that brings this estimate down to \$161,614, for these units. That item can be immediately cut down to \$161,614.51.

Mr. CRAMTON. Now, as I understand, your original estimate, \$248,719.95, was not reduced. In the general paring down of estimates this item was overlooked?

Col. CULVER. In the paring down of estimates it was reduced from another item to that, and that is the amount we are permitted to defend, the whole based on unit equipment as approved.

Mr. CRAMTON. But this item may be reduced to—

Col. CULVER. \$161,614.51. We explain the peculiarity of this reduction in this matter. The units ordinarily cost \$880 each, but you get into the lighter-than-air class and the units cost \$3,000—

Mr. CRAMTON. This is equipment, Colonel, not intended for particular posts, schools, and fields, but for attaching to new air craft.

Col. CULVER. No, sir; this is entirely ground equipment for field use.

Mr. CRAMTON. Accompanying new air craft equipment. I will say this, I am entirely in the dark as to what the Air Service is going to do with this \$248,000 of new telephone equipment. Are not all of your fields and units equipped now?

Col. CULVER. Yes, sir; the Signal Corps handles the telephone and telegraph equipment of the fields and units as long as they are at the permanent fields or stations.

Mr. CRAMTON. You do not attach a wire telephone to the air ship?

Col. CULVER. No, sir. This is all ground equipment. We will say, an expeditionary force, be it one of peace or of war, requires ground communications in the field. That is where this equipment is to be used entirely, and it is for connecting up the different camps and the parts of airdromes in the field, in the different Air Service headquarters, within their activities.

Mr. CRAMTON. Is it buying up equipment for possible emergency?

Col. CULVER. It is, to a certain extent; yes, sir. The Signal Corps may have this in stock. When we get equipment from the Signal Corps, a change of funds takes place from one department to the other.

Mr. CRAMTON. Is it equipment generally that the Signal Corps has in stock?

Gen. SQUIER. We have not provided for it all. He means that in the reservoir of equipment we may likely have some to loan them. This whole business has always been by transfer of funds. You see, they ask for what they need. We might have a reservoir from which to fill it, but we would have to fill it up again, so that we could not promise that we would have it. We might have it.

ITEM FOR TRAINING PURPOSES.

Mr. CRAMTON. What part of that will be necessary for your training purposes for the fiscal year 1922?

Col. CULVER. For training purposes within the schools alone and allowing nothing for the air troops when ordered into the field, it would be \$6,160.

Mr. CRAMTON. I think that I will ask, Colonel, that you put into the record this statement, the substance of it, which will give something of the itemization.

(The statement follows:)

The accompanying chart shows the details of item 18, "Air Service telephone expenses," on the detailed estimate of the Signal Corps. This estimate covers field-wire telephone and telegraph equipment for the ground communications of the Air Service, not in permanent posts or stations, but in the field. In operations either in peace or in war. The seventh line of the chart (\$6,160) covers equipment for school or in truaction purposes. All other items pertain to equipment for use in field operations of the Air Service units away from their regular stations or posts. The Signal Corps handles all wire telephones and telegraphs at the regular permanent stations and posts. The regulations provide, however, that when troops, air or ground, go into the field the necessary field lines of information will be handled by the Infantry, within the Infantry brigade; by the Cavalry, within the Cavalry brigade; by the Field Artillery, within the Artillery brigade; by the Air Service, within its activities, etc. It provides also that the Signal Corps provide certain trunk lines, and that the Air Service run lines connecting their activities into the trunk line. The Signal Corps has supervision over the entire system of communications made up of these various elements.

Now, under Item 4, in the detailed estimate of the Signal Corps, we find "Signal equipment for organizations, for land forces, \$3,735,489.86," and "For Air Service, \$1,626,648.04." The item "For land forces" covers the equipment of field telephones, camp switchboards, and the like, for the Infantry, the Cavalry, the Field Artillery, etc., but does not cover the corresponding equipment for the Air Service. The item "For Air Service, \$1,626,648.04," does not cover the corresponding field-wire equipment for the Air Service. The signal equipment for the Air Service is divided into two parts—radio equipment and field-wire telephone and telegraph equipment. The item under No. 4 for Air Service covers the radio only. Item No. 18 covers the field-wire telephone and telegraph equipment for the Air Service (\$248,718.95). I have stated that in rearranging the Air Service estimate to bring it within the \$60,000,000 which the Air Service is permitted to defend, item No. 18 of the Signal Corps estimate suffered a reduction to \$248,719.95, which amount we are permitted to defend. I have also stated that this item can be reduced still further to \$161,534.51 by reason of the reduction of the number of the different tactical units in the Air Service and the difference in cost of this standard equipment for the different types of tactical units. The chart in detail by numbers, follows:

Field wire telegraph and telephone equipment for Air Service.

Type of unit.	Number of such units.	Telephone and telegraph per unit.	Maintenance and repair 10 per cent.	Total telephone and telegraph per unit.	Total cost, telephone and telegraph equipment, of units of this type.
Observation squadron—corps.....	10	\$800.00	\$80.00	\$880.00	\$8,800.00
Observation squadron—Army.....	15	800.00	80.00	880.00	13,200.00
Troop squadron.....	4	800.00	80.00	880.00	3,520.00
Track squadron.....	4	800.00	80.00	880.00	3,520.00
Light bombardment.....	4	800.00	80.00	880.00	3,520.00
Heavy bombardment.....	1	800.00	80.00	880.00	880.00
Schools.....	7	800.00	80.00	880.00	6,160.00
Signal—bombardment.....	1				
Signal company.....	21	3,540.15	354.02	3,894.17	81,777.57
Ship company.....	4	3,540.15	354.02	3,894.17	15,576.68
Air Service headquarters, wings and groups	10	1,365.00	136.50	1,501.50	13,513.50
Stations.....	8	80.00	8.00	88.00	704.00
R. O. T. C. units.....	14	266.67	26.67	293.34	4,026.76
Stations, long distance.....	10				
Stations, radio.....	25				
Stations, beacon.....	25				
Transmitters, batteries, and panels.....					
Food stock replenishment, maintenance and repair.....					
Total.....					161,534.51

Mr. CRAMTON. Is there anything further that you want to say with regard to the estimates here for the Air Service?

Gen. SQUIER. Col. Mauborgne is in charge of the research and development, and will handle those items.

Mr. CRAMTON. Then we will just leave that.

Gen. SQUIER. I think we have already passed that.

Mr. CRAMTON. I think we will defer that. We are going to take it up after we get through these other items. Is there anything further?

Gen. SQUIER. Item 3 I will take up at another time.

Gen. LORD. I might put into the record at this point that Col. Culver, the witness, is one of the pioneers in working out this wireless or radio telegraph, and played a very important part in the development of this as a Signal Corps officers.

Col. CULVER. I might modify that a little. I do not claim any credit for the invention of the radio telegraph or telephone. I never have. My part has been the application of ground radio apparatus to the air, and the development of advanced aerial tactics made possible by the use of air radio. I have carried on much of the air work in person. That is where I fit into the game.

Gen. SQUIER. Now that the subject has come up, I would like to couple my sentiments with Gen. Lord's. This officer was in my corps in the days when we had the Air Service, and he has always been most progressive in the evolution of radio with respect to the Air Service—day by day working hand in hand in connection with the evolution of the new service—and we are fortunate in having him in the Air Service as a liaison officers.

Mr. CRAMTON. We all know that you can speak with authority on that subject.

COMMON SUPPLIES CHARGEABLE TO SIGNAL CORPS FUNDS.

Gen. SQUIER. No. 19 is next, Mr. Chairman.

Mr. CRAMTON (reading):

Supplies common to two or more bureaus properly chargeable against Signal Corps funds, \$127,346.24.

Gen. SQUIER. Under this heading are included those supplies used, or issued by the Signal Corps, which, under existing regulations, have been classified as general supplies, on account of being common to two or more bureaus, but which are secured by allotting funds to the Quartermaster General to cover the purchase price thereof. Under this heading would be classed such items as cordage, lumber, and commercial hardware. The figures are based on the requirements for these items for the past two years, which is the only reliable basis available for this purpose. No detailed estimate can be furnished, due to the fact that there may be considerable variation from year to year in the various components which go to make up the total. As the total is comparatively constant, however, it is thought that an arbitrary division is not necessary. This item is somewhat dependent upon the size of the Army, but really is affected more by the internal activities of the various units which have use for such items. That, Mr. Chairman, is according to the ruling. Certain items, such as lumber, cordage, hardware, and things that

all the departments use or two or more departments use, and we have to pay for the part that we use by transfer of funds. All this is procured by the Quartermaster Corps, but the money is paid out by the Signal Corps.

Capt. ALBRO. And this is a new item in the Signal Corps appropriation.

Gen. SQUIER. We get the money and transfer the funds.

Mr. CRAMTON. Is there any basis for comparison?

Capt. ALBRO. This is the estimate of what the quartermaster has furnished us.

Gen. SQUIER. We have had no experience with that as yet.

Mr. CRAMTON. I suppose in preparing the figures that Chairman Anthony requested, as to the possible reduction of figures in the event that the limit of 175,000 is fixed for the Army, you will give attention to that.

Gen. SQUIER. We have done that. I have said in principle that we can not reduce like other people, because we have to have the same equipment regardless of the size of the divisions.

TELEPHONE EXPENSES FOR RECRUITING DISTRICTS.

Mr. CRAMTON. The next is "Telephone expenses for recruiting districts, \$67,918."

Gen. SQUIER. This item which was inserted at the request of the office of The Adjutant General has upon examination been found to be a duplication, as it is already contained in item 8 above, and it can therefore be eliminated from further consideration.

Mr. CRAMTON. There is no difficulty in getting the committee to concur on that. Corps headquarter radio station has been eliminated?

Gen. SQUIER. Yes.

Mr. CRAMTON. You have nothing to suggest on that?

Gen. SQUIER. No.

RADIO STATIONS AT COAST ARTILLERY POSTS—ELIMINATION OF ESTIMATE.

Mr. CRAMTON reading:

Radio stations at Coast Artillery posts, \$212,243.74.

Capt. ALBRO. It is requested that this item be eliminated, because after conference with the Coast Artillery it has been deemed that this constitutes a proper charge against the appropriation for fortifications, and the item is being included in that bill in reduced amount.

Gen. SQUIER. It is a question, Mr. Cramton, as to whether or not a permanent field station at a fort is a fortification or not. It is just a fine point whether it belongs over there or here.

MOBILE RADIO STATION FOR COAST ARTILLERY BRIGADE.

Mr. CRAMTON (reading):

Mobile radio station for Coast Artillery brigades, \$169,794.99.

Gen. SQUIER. Col. Mauborgne is in charge of that.

SHORTAGE OF EQUIPMENT.

Maj. MAUBORGNE. I should like to say that I have prepared a statement regarding the shortage in equipment, which consists in the matter of equipment for heavy artillery brigades, including motorized and railway artillery. The present tables of equipment contemplate the supplying by the Signal Corps to these organizations of—

22 charging sets-----	\$11,594
25 radio trucks-----	120,500
17 radio telegraph and telephone sets-----	51,000
43 radio telegraph and telephone sets-----	34,400
18 radio trailers, at a total cost of-----	32,400

making a grand total of \$249,894 worth of apparatus which the Signal Corps is supposed to supply to this organization.

If this equipment is to be placed in production the money is necessary. The organizations are in existence.

TRUCKS.

With reference to this item of the SCR-124 radio operating trucks it is to be noted that the cost of \$4,120 each includes a reimbursement to the Motor Transport Corps for the price of the chassis at approximately \$2,720 apiece. It is believed that 25 chassis of suitable type for these vehicles should be furnished to the Signal Corps without reimbursement, saving a total of \$68,000.

I invite your attention to the fact that the item as laid down in the bill is cut to \$169,794.99, and making a deduction of this \$68,000 in case we can get the chassis from the Transport without charge, there will still be a shortage of \$12,099.01 from the item as it appears in this bill. The situation during the past year and a half has been that under some regulation, about which I know very little, which undoubtedly Gen. Lord can tell us about, in accordance with which we reimburse Motor Transport for all chassis or vehicles on which we build bodies, and it looks as though somebody might have enough in stock to supply us without cost. But we have no knowledge upon which to base such a statement.

Mr. CRAMTON. How much is the expenditure for the current year?

Maj. MAUBORGNE. On which item, sir?

Mr. CRAMTON. This item.

Maj. MAUBORGNE. None at all.

Mr. CRAMTON. What would happen if there was none next year?

Maj. MAUBORGNE. Well, sir, there would be no communication between the railway and the heavy artillery units and the airplanes and no opportunity for use in the matter of fire control.

Mr. CRAMTON. Does this complete the equipment if you receive the item asked for here?

Maj. MAUBORGNE. No, sir; there will be a shortage of \$12,099.01.

Mr. CRAMTON. Is it necessary to secure complete equipment in the one year?

Maj. MAUBORGNE. Absolutely, sir.

Mr. CRAMTON. Why?

Maj. MAUBORGNE. These big guns depend for their eyes and their firing data upon the Air Service. They fire at extremely long ranges. This long range of communication between the airplane and the bat-

teries on the ground, either railway artillery or the motorized artillery, the 155's, can only be covered by radio sets not now in existence; in fact, the ones proposed here. In this connection I would like to say that one of the sets desired here was just recently tested and has a radio range of 400 miles between similar stations.

STANDARDIZATION OF EQUIPMENT.

Mr. CRAMTON. Has this equipment become standardized?

Maj. MAUBORGNE. It is now in the development stage. These models, soap-box models so to speak, consist of working models, and we want to go into production.

Mr. CRAMTON. If we should completely equip this year, in about two years would we need to supplant with more advanced equipment?

Maj. MAUBORGNE. The present equipment now in the hands of the Air Service and ground troops has now been in operation for three years or three and a half years. This equipment would not be changed very likely until the range of the guns is changed, which would make a greater range of communication necessary.

Mr. CRAMTON. The next items apparently are in the desirable but not essential class, "Betterment of Alaskan radio system (one-third total project), \$250,000," and "New radio stations in Alaska, \$200,000."

RADIO EQUIPMENT FOR TANKS.

Gen. SQUIER. Those have been eliminated. The next is "Radio equipment for tanks," unless the committee wants to restore this other item. Everybody is going to be on our necks and will want those stations.

Capt. ALBRO. We have letters on file, petitions, and everything else, but we have left this item out because we want to keep the cost down for the year 1922.

Mr. CRAMTON. In the idea of keeping down new equipment as much as possible?

Gen. SQUIER. Yes.

Mr. CRAMTON (reading). "Radio equipment for tanks, \$10,000."

Gen. SQUIER. This item was originally submitted to the Signal Corps by the Chief of Infantry asking for \$75,000. In the opinion of the Signal Corps, there will be required but \$10,000 of this item as an absolute necessity. This is based upon the table of equipment, which applies to the Tank Corps, the inventory of the stock on hand, and possible substitutions of stock apparatus for some that has been requisitioned, and the fact that it is believed developmental work should be carried out still further before authorizing the equipment of the tanks with any radio or other sets which are not in stock but require purchase. In other words, the tank starts off across the field of action. The set inside is surrounded with metal and it is difficult to get any radio to work at all. The development of the tank radio set is in a kind of fluid condition and we do not feel justified in asking for the original estimate. We think \$10,000 is enough. We probably will not get very far, but we will do something.

Mr. CRAMTON. Now, the items that we passed over and on which the Air Service would like to be heard.

Gen. SQUIER. We are prepared to take that up now.

Mr. CRAMTON. Is there anything further, General, that you want to say on these estimates that we have passed over?

Gen. SQUIER. I do not know that there is anything, Mr. Chairman. We have made a special point to carefully study these items. Capt. Albro is in charge of the finances, and it is my instruction that year in and year out he shall study appropriations. We do not study them just a few days before coming here. It is his job continuously, the leading work of his office, which pertains to every month of the year, and he is prepared in much greater detail than I am, of course, to furnish this committee with anything it may require in the way of details. If he has not got what you want we will see that he does get it.

CLEAN-UP WORK.

Mr. CRAMTON. This item in the general analysis of the Army estimates, \$173,487.68 in the clean-up classes. Could you put into the record a statement showing how that item is made up?

Capt. ALBRO. That has been done already, Mr. Cramton, in the letter as submitted to the Chief of Finance, showing that it pertains to items 1, 7, 8, and 10, exclusively. I think that the best thing to do would be to put this letter into the record. With your permission we will do that.

Mr. CRAMTON. All right.

(The letter follows:)

NOVEMBER 27, 1920.

Office Chief Signal Officer of the Army.

Office Chief of Finance, room 3014, Munitions Building.

Approved estimate, Signal Service of the Army, 1922.

1. In accordance with letter from the Adjutant General, dated November 20, 1920, copy of which is attached hereto, the following report is submitted.

2. Attached herewith is an analysis of the approved estimate, Signal Service of the Army, 1922, which, in accordance with the letter referred to, can be classified as follows:

(a) Amount for cleaning up war work: On account of the extreme fluidity of Signal Corps activities, it is difficult to state what portion of items 1, 7, and 8 pertain to this item, but it is thought that 5 per cent is a conservative estimate. All of item 10 practically pertains to this classification. This, therefore, can be tabulated as follows:

Item 1.....	\$69,940.30
Item 7.....	9,233.44
Item 8.....	73,069.57
Item 10.....	21,224.37
Total.....	173,487.68

The above total represents the Signal Corps estimate as to that portion of its approved estimate, which pertains to cleaning up war work.

(b) Amount for quasi-military work: No portion of the estimate for Signal Service of the Army pertains to this item. However, the item of "Washington-Alaska military cable and telegraph system" can be classed wholly as quasi-military work, and this amounts to \$212,434.

(c) As to the amount for constant or nonvariable components pertaining to normal military requirements of the Regular Establishment, practically all the items in the approved estimate come under this head, with the exception of those mentioned under a, above and \$212,243.74 of item 2, \$1,628,648.04 of item 4, and all of item 18. The latter three make a total of \$2,087,611.73, which when added to the sum listed under a, above, and subtracted from the approved

total leaves a balance of \$8,436,500.59, which can be classed as a constant non-variable component.

(d) The exception mentioned under c, above, namely, \$2,087,611.73, was submitted by Air Service for inclusion in the Signal Corps estimate, and in its original form amounted to \$3,604,196.97. As the approved amount is but 60 per cent of the submitted amount, this office presumes that this reduction has placed the figures at a minimum amount, which can in all probability be considered a constant, which will have to be increased if the proposed Air Service program is carried out.

3. The recapitulation would be as follows for Signal Service of the Army, 1922:

Class a	\$173,487.68
Class b	
Class c	8,436,500.59
Class d	2,087,611.73
Total	10,697,600.00

it being understood that class d as listed is now questionable as to whether or not it should be eliminated and included in class c.

4. The recapitulation for Washington-Alaska military cable and telegraph system would show same to be all class b.

By authority of the Chief Signal Officer:

A. BLISS ALBRO,

Captain, Signal Corps, Finance Officer.

Capt. ALBRO. The point is that the Signal Corps has practically no clean-up work. Item 1, some of our personnel in the telephone service are helping the other departments clean up. Item 7, a little bit of that is cleaning up some of the back files. No. 8 is for current telephone and telegraph service. Some of the telephone service is used for cleaning up.

Gen. SQUIER. Here are some data on one of these items. In order to save time, if you will allow me, I will insert a statement.

Mr. CRAMTON. All right.

Gen. SQUIER. This is a complete analysis of item 2.

Mr. CRAMTON. The Air Service, item 2?

Col. CULVER. Maj. Mauborgne has charge of the development for all services.

ENGINEERING AND RESEARCH WORK FOR AIR SERVICE.

Mr. CRAMTON. "Engineering and research work for Air Service, \$212,243.74."

Maj. MAUBORGNE. I did not know that you were going to give me a chance to say a word. That is covered in the paper just submitted.

(The statement referred to follows:)

For the purchase of precision instruments, machines, hand tools, wire, brass, steel, insulating material, etc., electrical power and gas used in the construction of models, research work, and the testing of equipment at the Signal Corps laboratory, 1710 Pennsylvania Avenue NW., city	\$3,400
Improvement of portable field telephones	4,250
Improvement of field telephone switchboards	4,250
Development of primary batteries	1,275
Development and improvement of cipher device	850
Improvement of pack-wire cart	2,125
Development of system of automatic fire control for Coast Artillery	12,750
Investigation, test, and development of portable duplex telegraph circuits for superposition of telephone lines	1,700
Development of method for application of cipher printing telegraph to radio telegraph apparatus	4,250
Total	34,850

For the purchase of such materials, tools, supplies, and engineering services as can not be provided by the Military Establishments, and have to be secured from outside agencies, and for the purchase of materials, supplies, and incidental expenses involved in the development, design, and construction of experimental models in the radio laboratories, for units of the Army other than the Air Service, \$169,150.

The following is an estimate of the developments to come under this total in detailed form:

Development of gas engine auxiliary for cavalry pack set.....	\$4,250
Ground radio telegraph set, capable of being packed, designed for communication with corps observation planes; telephone range 30 miles; telegraph range 50-90 miles.....	2,550
Radio operating trucks and trailers, improvement in details of.....	4,250
Improvement of later type loop sets.....	2,550
Improvement and further development of loop radio telephone set....	4,250
Development of various types of amplifiers for goniometric work of Military Intelligence intercept stations and Coast Artillery goniometric stations.....	2,550
Development of a radio system for automatic transmission of range finding data for Coast Artillery stations.....	4,250
Development of wired radio cable systems, particularly for use of Coast Artillery.....	21,250
Testing and standardization of lead storage batteries.....	2,550
Development and testing of portable charging sets.....	8,500
For special research problems in radio intercommunication, submarine, and other forms of electrical communication, for which the Bureau of Standards already has competent specialists and on which problems it would not be profitable for the Signal Corps to employ like specialists (this money to be expended by the Bureau of Standards on special problems assigned by the Signal Corps).....	21,250
Development of special vacuum tubes for transmitting and receiving.....	42,500
Development of amplifiers and external heterodyne for same.....	4,250
Development of direction finders for intercept work and for the special work of the Coast Artillery.....	8,500
Development of static elimination devices.....	8,500
Investigation into various methods of telephone modulation.....	2,550
Investigation and further development of resonance wave coil transmitters and receivers and direction finders.....	4,250
Development of gasoline engines for various radio purposes.....	7,480
For the development of secret signaling systems involving light wave transmitters and radio receivers.....	4,250
Development of tank radio combined telephone and telegraph set.....	8,500
Improvement of cavalry mounted receiving set.....	170
Total.....	169,150

For the purchase of such materials, tools, supplies, and engineering services as can not be provided by the military establishments and have to be secured from outside agencies, or for the purchase of materials, tools, supplies, and incidental expenses involved in the development, design, and construction of experimental models in the Signal Corps radio laboratories for the Air Service, \$212,243.74.

This total is covered in itemized form as follows:

For improvements in airplane direction finders.....	\$5,000
For duplex radio transmission on airplanes.....	10,000
For the development and production of models of three types of airplane radio transmitting and receiving sets, as follows:	
Short-range set.....	10,000
Medium-range set.....	10,000
Long-range set.....	15,000
Investigation and production of various types of air fans and air-fan generators for various types of airplanes.....	3,500

Development of remote control for airplane telegraph and telephone sets.....	\$10,000
Development of high-frequency amplifiers for airplanes suitable for short wavelengths.....	5,000
Improvement of methods for obtaining power for generators of airplane sets direct from engine or airplane.....	15,000
Further development in the problem of the use of fixed antenna on airplanes and radio sets suitable for their use.....	10,000
Development of radio methods to enable airplanes to locate landing fields.....	25,000
Development of secret light methods to enable airplanes to locate landing fields at night.....	3,000
Development of navigating and direction-finding sets for installation on aircraft.....	10,000
Development of special loop direction-finding sets for Air Service.....	5,000
Development of resonance wave coil altitude and direction finders for use on airplanes and on ground.....	5,000
For the development of new types of telephone noise-proof throat transmitters.....	5,000
For the development of new types of telephone receivers to fit in operator's helmets.....	1,000
For the development of new types of helmets for radio operators on airplanes.....	5,000
For the development of interphone sets for intercommunication between members of airplane and airship crews.....	2,000
For the improvement of field radio operating and repair units.....	5,000
For the procurement, testing, and remodeling of samples of foreign aircraft radio equipment.....	15,000
For the development of special airship long-range telephone and telegraph sets.....	25,000
For the development of miscellaneous airplane and observation balloon radio equipment not covered by above.....	22,243
Total for aircraft radio.....	212,243
For the upkeep of buildings, heat, and light at the radio laboratories, Camp Alfred Vail, Little Silver, N. J.....	42,500
For the purchase of laboratory equipment and installation of same at the Signal Corps radio laboratory, McCook Field, Dayton, Ohio.....	8,192
Total for all development and research work on Signal apparatus of all classes.....	466,936

Gen. SQUIER. It is just exactly what he would say, only he crystallized it before he came down here.

Mr. CRAMTON. Does that cover all?

SIGNAL EQUIPMENT FOR ORGANIZATIONS, FOR LAND FORCES.

Maj. MATHBORGNE. I think Col. Culver covered the item under 4, "Signal equipment for organizations for Air Service, \$1,626,648.04.

Mr. CRAMTON. Then, I will ask you to put that in also.

(The statement follows:)

Air service radio.

Type of unit.	Number of such units.	Type of equipment.	Cost of air radio equipment per unit.	Replacement and spares, 50 per cent.	Maintenance and repair, 10 per cent.	Total cost of air radio equipment per unit.	Cost of ground radio equipment per unit.	Replacement and spares, 10 per cent.	Maintenance and repair, 10 per cent.	Total cost of ground radio equipment per unit.	Aggregate cost of all equipment per unit.	Total for all units of this type.
Observation squadron-- Corps	10	Sheet No. 1....	\$17,908.80	\$8,954.40	\$1,790.88	\$28,654.08	\$12,724.88	\$1,272.49	\$1,272.49	\$15,269.86	\$43,923.94	\$439,239.40
Observation squadron-- Army.	15	.....do.....	33,508.80	16,754.40	3,350.88	53,914.08	12,724.88	1,272.49	1,272.49	15,269.86	69,183.94	1,037,759.10
Pursuit squadron.....	4	Sheet No. 2....	6,650.00	3,325.00	665.00	10,640.00	12,724.88	1,272.49	1,272.49	15,269.86	25,909.86	103,639.44
Attack squadron.....	4	Sheet No. 3....	5,131.20	2,565.60	513.12	8,209.92	12,724.88	1,272.49	1,272.49	15,269.86	23,479.78	93,919.12
Day bombardment.....	4	Sheet No. 4....	16,348.80	8,154.40	1,630.88	26,094.08	12,724.88	1,272.49	1,272.49	15,269.86	41,363.94	165,455.76
Heavy bombardment.....	1	Sheet No. 5....	13,035.00	6,517.50	1,303.50	20,855.00	12,724.88	1,272.49	1,272.49	15,269.86	36,124.86	36,124.86
School.....	7	Sheet No. 6....	28,935.20	14,497.60	2,899.52	46,392.32	13,222.18	1,322.22	1,322.22	15,866.62	62,258.94	435,812.58
School bombardment.....	1	Sheet No. 7....	32,617.60	16,308.80	3,261.76	52,188.16	13,222.18	1,322.22	1,322.22	15,866.62	68,054.78	68,054.78
Balloon company.....	21	Sheet No. 8....	(1)	.....	250.00	4,000.00	4,271.00	427.10	427.10	5,125.20	5,125.20	107,629.20
Air hip company.....	4	Sheet No. 9....	2,530.00	1,250.00	.....	.....	5,971.00	597.10	597.10	7,165.20	11,165.20	44,660.80
Air Service headquarters wing and groups.	10	Sheet No. 10....	(1)	.....	.....	.....	12,724.88	1,272.49	1,272.49	15,269.86	15,269.86	152,698.60
Air parks.....	5	Sheet No. 17....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
R (C) T. C. units.....	14	Sheet No. 11....	(1)	.....	.....	.....	6,611.09	661.11	661.11	7,933.31	7,933.31	111,046.34
Radio stations, long-distance.....	10	Sheet No. 12....	(1)	.....	.....	.....	10,000.00	1,000.00	1,000.00	12,000.00	12,000.00	120,000.00
Radio stations, radio.....	25	Sheet No. 13....	(1)	.....	.....	.....	300.00	30.00	30.00	360.00	360.00	9,000.00
Radio station, beacon.....	25	.....do.....	(1)	.....	.....	.....	1,500.00	150.00	150.00	1,800.00	1,800.00	45,000.00
Bracket, battery, and panel.....	.....	Sheet No. 14....	.....	.....	.....	.....	.....	.....	.....	.....	.....	27,205.46
Depot stock replacement and maintenance, and repair.....	.....	Sheet No. 15....	.....	.....	.....	.....	.....	.....	.....	.....	.....	46,411.78
Total.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,043,677.22

None.

Mr. CRAMTON. Is there any statement that you want to make on that?

Col. CULVER. This chart is made up from the approved unit equipment tables for units of the Air Service, to fit the air program as presented to Congress. It pertains to item No. 4 of the Signal Corps estimate, signal equipment for organizations, subitem "For Air Service."

Mr. CRAMTON. Of course, this item will depend largely upon the treatment given the items for expansion of the Air Service?

Col. CULVER. Yes, sir. This schedule includes new equipment; that is, modern equipment supplanting some of the equipment left over from the war. It is not desired, however, to purchase complete equipment of the new types for the Air Service on account of the time required to produce new sets and the necessity for making a change like that with considerable caution. Now, in the last item you will see a deduction amounting to \$1,045,041.29. This deduction is made up of the following items: (a) Stock on hand, usable with modern equipment, \$450,101.78; (b) another item, deducting 50 per cent of the cost of the modern sets, as it is impracticable to supply more than this during the fiscal year 1922, \$299,202.93; (c) obsolete equipment to be retained in service to supply the deficiency of 50 per cent in the supply of modern equipment, \$293,736.59, making a total deduction of \$1,045,041.29, which is the item appearing just above the bottom figure. We are leaving the net estimate according to the tables \$1,998,635.93. However, we are permitted to defend only \$1,626,648.04.

Mr. CRAMTON. This is about \$300,000 less than you consider entirely essential for your program?

Col. CULVER. Yes, sir; including about 50 per cent supply of equipment. What is done to the air program will, of course, affect—

Mr. CRAMTON. The units, of course.

Now, is there anything further on item 4, "Signal equipment for organizations: For the land forces"?

Capt. ALBRO. Yes, sir; we would like to submit this tabulation, which shows the present strength of the Army by organizations, regardless of the number of men that constitute those organizations, listing the total signal supplies required to initially equip and maintain them for one year. From this amount there has been subtracted the amount now on hand, leaving the amount needed for 1922, which amounts to \$7,149,946.53. I would like to call attention to the fact that this amount has been reduced by force of circumstances to \$3,803,407.86.

(The statement follows:)

	For initial equipment and maintenance.	Needed for 1922.
7 divisions.....	\$2,939,779.64	\$1,656,725.70
1 tank corps.....	131,060.16	131,060.16
Coast Artillery Corps (3 brigades).....	665,121.66	355,235.64
17 Cavalry regiments.....	299,091.71	152,455.49
35 Infantry regiments.....	877,060.10	166,590.90
1 Artillery brigade.....	172,640.73	107,454.10
3 Artillery regiments, 75 mm.....	141,809.64	23,858.67
2 Artillery regiments, 155 mm.....	131,363.22	64,491.12
4 field signal battalions.....	328,286.00	197,359.72
5 telegraph battalions.....	214,730.30	191,169.15
Photographic equipment for 10 field signal battalions.....	35,028.00	35,028.00
Pigeon equipment for 7 divisions.....	16,063.32	16,063.32
Equipment "B," for training purposes for field signal battalions and telegraph battalions.....	22,631.44	22,631.44
28 balloon companies.....	188,534.36	124,573.24
Total.....	6,163,180.28	3,244,646.87
NATIONAL GUARD.		
16 divisions.....	6,719,496.22	3,786,401.00
Photographic equipment for 16 field signal battalions.....	56,044.80	56,044.80
Pigeon equipment for 16 divisions.....	36,716.16	36,716.16
Equipment "B," for 16 field signal battalions.....	25,697.12	25,697.12
Total.....	6,837,954.30	3,905,259.08
Grand total.....	13,001,134.58	7,149,946.53

Mr. CRAMTON. Is that all?

Capt. ALBRO. Yes, sir.

WASHINGTON-ALASKA CABLE LINES.

Mr. CRAMTON. This other item, does that come under your Wash-
ington-Alaska cable lines?

Gen. SQUIER. Last year we had \$4,140,000.

Mr. CRAMTON. Last year you had \$4,140,000, and this year your
estimate calls for \$10,910,034.

Gen. SQUIER. That is the total.

Mr. CRAMTON. \$140,000 last year and you estimate \$212,034.

Capt. ALBRO. In addition to the \$140,000 last year we had a de-
ficiency appropriation of \$95,000.

Mr. CRAMTON. Last year?

Capt. ALBRO. Yes, sir.

Mr. CRAMTON. For the year 1920 you had \$140,000, with a deficiency
of \$95,000, making a total of \$235,000. The current year you have
\$140,000. Will there be any deficiency?

Capt. ALBRO. There should be a deficiency reported in order to
keep the system operating efficiently, as there is a great necessity for
replacing a certain length of cable immediately.

Gen. SQUIER. The cable is pretty old, has been used for many years
and we never know just what is going to happen to it.

Mr. CRAMTON. State what the \$212,000 is to cover.

Capt. ALBRO. I have a copy here which gives the details of that.

(The statement follows:)

Washington-Alaska military cable and telegraph system.

	Rate.	Estimated for 1922.	Total.	Expended in 1920.
Salaries:				
Auditor.....	\$3,600.00	1	\$3,600.00	1
Chief cable operator.....	2,400.00	1	2,400.00	1
Chief clerk.....	1,800.00	1	1,800.00	1
Clerks.....	1,600.00	1	1,600.00	3
Do.....	1,500.00	3	1,500.00	1
Messengers.....	1,000.00	1	1,000.00	3
Do.....	900.00	7	8,100.00	3
Do.....	720.00	4	2,880.00	2
Do.....	600.00			2
Do.....	480.00	4	1,920.00	4
Do.....	360.00	1	360.00	1
Janitor.....	1,200.00	1	1,200.00	
Do.....	180.00	1	180.00	1
Cable engineer.....	4,020.00	1	4,020.40	
Do.....	3,600.00			1
Do.....	2,100.00	1	2,100.00	1
Cable foreman.....	2,040.00	1	2,040.00	
Do.....	1,800.00			1
Wages:				
Cable steam engineer.....	1,980.00	1	1,980.00	
Do.....	1,560.00			1
Assistant cable foreman.....	900.00	1	900.00	
Do.....	840.00			1
Carpenter.....	900.00	1	900.00	
Do.....	780.00			1
Cable hands.....	900.00	19	17,100.00	
Do.....	720.00			16
Cable operator.....	1,500.00	1	1,500.00	
Do.....	1,200.00	1	1,200.00	
Telegraphers.....	1,800.00	10	18,000.00	
Do.....	2,100.00	5	10,500.00	
Total.....			87,980.00	
4 temporary messengers employed on the first section.....			3,600.00	
7 temporary laborers employed on the first section.....			14,606.60	
Total.....			18,206.60	
Incidentals for labor, material, cable, wire, etc., for maintenance and betterment of Alaskan telegraph system.....			56,247.40	
Purchase of new cable for stock for emergency.....			50,000.00	
Total.....			212,034.00	

Gen. SQUIER. It runs in the main just as it has done for years. Of course, on the whole the system operates to the salvation of that great country of Alaska. It is one of those quasi-military things that the Signal Corps is charged with. It is of very little military service, but the returns received are very satisfactory.

Mr. CRAMTON. This in general covers for salaries \$87,980?

Gen. SQUIER. Yes.

Mr. CRAMTON. Is that an increase either in the list of officers and employees or in the rates of pay?

Gen. SQUIER. There is a certain amount of increase in salaries that have become necessary. You will see them there.

Capt. ALBRO. And three new stations.

Gen. SQUIER. Three extra stations have been added. It is not hard to reach any section of the country now.

Mr. CRAMTON. How does that item compare with the current year, the last year?

Gen. SQUIER. Well, you mean this particular item?

Mr. CRAMTON. \$87,980.

Capt. ALBRO. It is the same as the current year, sir.

RECEIPTS.

Gen. SQUIER. I would like just to put this in the record. During the year \$254,301.35 was deposited in the Treasury by the auditor for this system, distributed as follows: \$199,480.04 by this line and \$54,817.31 by other lines. I want to show you the amount of money taken in. When you estimate the market value of the business that we do for the Government, the thing is one of the finest investments from a money-making standpoint.

Mr. CRAMTON. How much did it turn into the Treasury for the current year?

Gen. SQUIER. \$254,301.35. We do not include in that any Government business at all. If we were to estimate the market value of that service at the regular message rate that we would have to pay a commercial concern, it would show that this is a great service and a great money-making scheme, in addition to being of service to the country.

Mr. CRAMTON. The estimates include certain temporary messengers and temporary laborers employed on the first section amounting to \$18,206.50. Have you any comments on that, Gen. Squier?

Gen. SQUIER. It is continuous work that has to be done there. That country has been going backward, due to the war.

Mr. CRAMTON. That is a continuation of the current item?

Gen. SQUIER. Yes, sir.

INCIDENTALS FOR LABOR, MATERIAL, CABLES, FIRE, ETC.

Mr. CRAMTON (reading):

Incidentals for labor, material, cables, fire, etc., for maintenance and betterment of Alaskan telegraph system, \$56,247.40.

Gen. SQUIER. Yes, sir. That is always with us. We could not get rid of that.

PURCHASE OF NEW CABLE FOR EMERGENCY.

Mr. CRAMTON. The other item, "Purchase of new cable for stock for emergency, \$50,000."

Gen. SQUIER. That is the plan that all cable people have.

Mr. CRAMTON. And the increase of the item over the current year is largely due to that item.

Capt. ALBRO. Items 3 and 4.

Gen. SQUIER. All cable companies have a reserve stock in their hands, and they set aside to reserve so much capital to buy cable with. We do the same thing. If anything happens, we can not get cable. The difficulty of getting any cable now in the world makes it well-nigh impossible. That is the trouble in the world to-day: there isn't any cable, and it takes 10 months to get cable after you have the money. Then we have to ship it across the continent on cars. We must keep a reserve.

Mr. CRAMTON. How much of a reserve have you now?

Gen. SQUIER. I think it is nearly gone: there is very little. I am frightened about it, as there is a reserve of 10 per cent that you are supposed to have.

Mr. CRAMTON. Is there anything further on that, General?

Gen. SQUIER. No, sir. On the whole you will find that the business enterprise of the Alaskan system has caused considerable profit, because I think it makes that country possible at all.

Mr. CRAMTON. Do you think it compares favorably with the Alaskan railroad?

Gen. SQUIER. I do not know anything about the Alaskan railroad.

Mr. CRAMTON. I think that covers the Signal Corps. I would be glad to have any additional statement that you want to make with reference to radio.

Gen. SQUIER. There have been projects before this committee or other committees for a couple of years for revamping the radio systems in Alaska and putting in new systems. The inhabitants are after it all the time. We cut that item out in another place. This estimate is for the regular system.

Mr. CRAMTON. And any increase is due entirely to the desire to replace.

Gen. SQUIER. Yes, sir.

Mr. CRAMTON. Rather than to extend?

Gen. SQUIER. Oh, yes. There are three stations to be added.

Capt. ALBRO. Those three stations were bought—that is, authorized and purchased last year.

Mr. CRAMTON. But the pending item——

Capt. ALBRO. Does not include any purchase. It is merely maintenance and repair, and \$50,000 for cable stock for emergency.

Mr. CRAMTON. Nothing for extension?

Capt. ALBRO. No, sir.

Mr. CRAMTON. I think that is all, then.

Capt. ALBRO. Here is the final presentation of the Signal Corps estimates with the notes, showing everything as discussed before the committee. I will leave a copy for the record.

(The statement referred to follows:)

Analysis of approved estimate, Signal Service of the Army, 1922.

1. Salaries and wages, Signal Service-----	\$1,398,806.00
2. Engineering and research work (exclusive of personnel):	
For Air Service-----	\$212,243.74
For land forces-----	254,692.49
	<hr/>
	466,936.23
3. Miscellaneous expenses and emergency purchases, Hawaiian and Philippine departments-----	25,000.00
4. Signal equipment for organizations:	
For Air Service-----	\$1,626,648.04
For land forces-----	3,803,407.86
	<hr/>
	5,430,055.90
5. Pigeon service for the Army-----	35,000.00
6. Meteorological service for the Army-----	178,594.62
7. Photographic and cinematographic service for the Army-----	184,668.78
8. Commercial telegraph and telephone service for the Army---	1,210,199.98
9. Training Signal Corps troops, enlisted specialists and officers--	50,000.00
10. Foreign Signal Service expenses-----	21,224.37
11. Corps area incidental expenses-----	25,000.00
12. Printing, including Signal Corps forms, for the Army-----	25,000.00
13. Gasoline and oils for Signal Corps vehicles and equipment---	25,000.00
14. Nonunit Signal Corps supplies-----	169,794.79
15. Radio installations and maintenance of Army transports-----	75,000.00
16. Operation and maintenance, Camp Alfred Vail-----	183,600.00

17. Miscellaneous expenses and emergency purchases, corps areas in the United States-----	\$174,002.85
18. Air Service telephone expenses-----	248,719.93
19. Supplies common to two or more bureaus properly chargeable against Signal Corps funds-----	127,346.24
23. Mobile radio stations for Coast Artillery brigades-----	169,794.99
26. Radio equipment for tanks-----	10,000.00
Total -----	10,233,764.75

NOTES.

(a) Item 4 has had added to it the amount previously carried under item 20 because the reductions which have been necessary in item 4 on account of the "approved estimate" being reduced below the amount originally submitted and "absolutely essential," has reduced item 4 to a point where the Signal Corps will be unable to supply the equipment it should to the Army and National Guard.

(b) Item 8 has been reduced in the sum of \$251,591.33 because it has been ascertained that this amount is already contained in item 1, and therefore constitutes a duplication.

(c) Item 20 has been eliminated and transferred to item 4 as referred to in note (a) above. Item 20 was originally included in the request of the Office of the Adjutant General, but it has been found that this item is already covered in item 8.

(d) Item 22 has been eliminated entirely, because upon conference it has been decided that this item properly belongs in the fortifications bill and is being submitted in that bill by the Coast Artillery in a reduced amount.

FRIDAY, DECEMBER 17, 1921.

AIR SERVICE.

STATEMENTS OF MAJ. GEN. CHARLES T. MENOHER, CHIEF OF AIR SERVICE, ACCOMPANIED BY COL. A. L. FULLER, COL. W. E. GILLMORE, LIEUT. COL. W. C. SHERMAN, MAJ. T. H. BANE, MAJ. P. E. VAN NOSTAND, COL. J. E. FECHET, MAJ. H. M. HICKAM, MAJ. A. W. ROBINS, MAJ. J. E. FICKEL, AND COL. A. E. TRUBY.

GENERAL STATEMENT.

Gen. LORD. The amount originally submitted by the Air Service was \$137,879,048.15. That was reduced by the board appointed to revise the estimates to \$60,000,000, the amount carried in this bill. The classification on this chart of the amount they consider a constant of that \$60,000,000 is \$57,148,208.

Mr. ANTHONY. You mean that sum you call constant, the \$57,000,000, is the absolutely necessary amount?

Gen. LORD. Irrespective of the size of the Army; that is the classification made by the Air Service.

Gen. MENOHER. Mr. Chairman, if it meets with the wishes of the committee, I would like to make a general statement first.

Mr. ANTHONY. You may proceed.

Gen. MENOHER. The estimates for the fiscal year 1922 were originally submitted to the Secretary of War in the amount of \$137,000,000. They were cut by the Secretary of War to \$60,000,000, and were submitted to the Secretary of the Treasury and included in the

Book of Estimates on that basis. In making the cut we reduced the amount of new aircraft for the equipment of units of the Regular Army and reserve and facilities for their flying, such as hangars and shops. The reorganization act approved June 4, 1920, allotted to the Air Service 16,000 enlisted men, including 2,500 flying cadets and 1,514 officers. This allotment is not sufficient for an Air Service properly balanced for the Regular Army provided in the reorganization act. The deficiency in certain types of organizations is expected to be filled from the National Guard and the reserve.

The allotment of organizations capable of being provided by the number of officers and enlisted men authorized in the act for the Regular Army, which allotment has been approved by the Secretary of War, provides for 26 observation squadrons, 4 pursuit squadrons, 4 attack squadrons, 5 bombardment squadrons, 16 photographic sections, 8 air parks, 18 balloon companies, 4 airship companies, and various detachments to be used at the special-service schools, 13 in all, for detachment at group and wing headquarters, and for the various supply depots, experimental plants, and the Washington office. The estimate as now submitted provides for the maintenance of these units, for the purchase of more than half of the service equipment necessary, and also for the establishment and maintenance of 13 points where reserve officers may continue their training.

NECESSITY FOR TRAINING RESERVE FLIERS.

I should like to explain briefly the necessity for continuing the training of reserve fliers. A careful study of the requirements for war with a first-class power indicate that the great majority of the flying officers must be furnished from the reserve and National Guard. We now have on the rolls of the reserve a total of about 5,300 flying officers, most of whom have had no flying since their discharge. They are the greatest asset remaining from the huge war-time expenditures, an asset which is rapidly depreciating in value.

Our estimates indicate that a flier's best usefulness as a combat flier lasts only about eight years, even if he has proper facilities to continue his training. Most of these fliers now carried on the rolls of the reserve will have ended their maximum usefulness as combat fliers in six years more, provided their training is continued. If their training is not continued that period is, of course, reduced.

The above statements form the basis for the inclusion in our estimate provision for the future training of these reserve officers, as well as for the request made by me to the Secretary of War to include in the estimate for pay of the Army an item for pay of 500 reserve officers on continuous active duty.

You have noted, perhaps, that I have stated that this estimate of \$30,000,000 will provide more than half of the service equipment for the authorized organizations of the Regular Army. I make that statement advisedly. A detailed statement of the requirements, based on the authorized allotments of organizations for the Regular Army, shows that more than \$30,000,000 is actually required to completely equip those organizations with airplanes and engines. Bearing in mind that money appropriated at this time will not actually be turned into aircraft until the beginning of the fiscal year 1923, on account

of the length of time required for production, and also bearing in mind that all equipment purchased during the war with which organizations are now equipped, will be approximately five years old at that time—and it is firmly believed that all such equipment will be absolutely unsafe to fly at that time—it is readily seen that the only service equipment then on hand will be the remainder of that purchased at the close of the last fiscal year and that purchased out of this year's funds. These remaining planes from recent purchases will not be sufficient to equip the organizations authorized.

I should be pleased to insert in the record later a statement of the planes purchased at the close of last fiscal year and of the planes to be purchased from this year's funds.

In preparing an analysis of these estimates for the information of the committee it has been reported to the Chief of Finance that no part of this estimate is dependent upon the enlisted strength of the Army. In this connection it is desired to make clear the difference between the enlisted strength of the Air Service and the enlisted strength of other combat arms. The entire combat personnel in the Air Service units consists of the flying personnel, all of which are officers, whereas in the other combatant arms the enlisted personnel furnishes the bulk of the combat strength. The enlisted personnel of the Air Service are merely for the performance of certain service on the ground in the supply and maintenance of the aircraft. While this enlisted personnel is necessary for this purpose its reduction will not reduce the number of flying personnel operating for the given number of airplanes and aircraft.

While the reduction of the enlisted strength would make the maintenance of that aircraft more difficult, and more expensive through an increased number of casualties, it will not reduce the number of flying officers and consequently the number of machines which must be maintained. Hence, a proportionate cut that might be made in the appropriations carried by the Army bill as a whole can not be applied to this Air Service appropriation.

I am inserting here a statement of the estimate in detail, a statement of the expenditures in the fiscal year 1920, and the estimated expenditures in the fiscal year 1921.

Air Service estimate for fiscal year ending June 30, 1922—Distribution of cost under item numbers.

[Air Service personnel—1,514 officers, 16,000 enlisted men.]

Item No.	Item of expenditure.	Operation.	Experi- mental stations and research.	Total
EXPENSES OF CIVILIAN EMPLOYERS.				
0201. 401	Pay of civilians in the office of the Chief of Air Service...	\$135,550	.....	\$135,550
0202. 401	Pay of civilians in the field.....	6,436,156	\$2,612,000	9,048,156
0203. 401	Traveling expenses of civilians on rolls in office of the Chief of Air Service.....	6,500	.....	6,500
0204. 401	Traveling expenses of civilians on field rolls.....	25,000	30,000	55,000
0205. 401	Pay of consulting engineers.....	.....	4,500	4,500
0206. 401	Traveling expenses of consulting engineers.....	.....	500	500
	Total.....	7,023,206	2,647,000	9,670,206

Air Service estimate for fiscal year ending June 30, 1922—Continued.

Item No.	Item of expenditure.	Operation.	Experi- mental stations and research.	Total.
INSTRUCTION AND OPERATIONS OF AIR SERVICE TROOPS.				
0110.401	Hydrogen, purchase of.....	\$300,000		\$300,000
039.401	Airplanes and their spare parts, maintenance and repair of.....	1,635,262	\$251,500	1,886,762
072.401	Airships and their spare parts, maintenance and repair of.....	166,700		166,700
083.401	Balloons and their spare parts, maintenance and repair of.....	19,450		19,450
076.401	Engines and their spare parts, maintenance and repair of.....	1,430,213	100,000	1,530,213
087.401	Instruments and accessories for aircraft and engines, maintenance and repair of.....	75,000		75,000
088.401	Machines, general equipment, and tools, maintenance and repair of.....	100,705	80,000	180,705
039.401	Ordnance equipment for aircraft, maintenance and repair of.....	14,250		14,250
0312.401	Photographic equipment and supplies, maintenance and repair of.....	77,000	3,000	80,000
0312.401	Radio equipment and supplies for aircraft, maintenance and repair of.....		2,000	2,000
037.401	Hydrogen, maintenance, equipment, operation of plants for production of.....	82,800		82,800
039.401	Text books, books of reference, and publications, purchase of.....	59,424	5,000	64,424
086.401	Maintenance and repair of equipment, material, and instruments for Air Service schools.....	64,900	5,000	69,900
091.401	Purchase of equipment, material, and instruments for use at Air Service schools.....	407,000	25,000	432,000
	Total.....	4,452,704	471,500	4,924,204
MAINTENANCE AND OPERATION OF STATIONS.				
301.401	Building and grounds at Air Service stations, maintenance and repair of.....		130,000	130,000
502.401	Water.....		4,000	4,000
503.401	Light and power.....		38,000	38,000
	Total.....		172,000	172,000
HELIUM, EXPLORATION, CONSERVATION, AND PRODUCTION.				
401.401	Purchase of land for development of.....	25,000		25,000
402.401	Lease of land for development of.....	500,000		500,000
403.401	Construction, maintenance, equipment, and operation of plants.....	817,750		817,750
404.401	Experimentation with and exploration for.....	32,500		32,500
	Total.....	1,375,250		1,375,250
EXPERIMENTAL AND RESEARCH, ENGINEERING AND DEVELOPMENT.				
1.401	Airplanes and accessories.....		1,540,000	1,540,000
2.401	Balloons, airships, and accessories.....		1,259,000	1,259,000
3.401	Engines and accessories.....		538,000	538,000
4.401	Medical.....		18,000	18,000
	Total.....		3,355,000	3,355,000
PRODUCTION OF NEW AIRCRAFT, ENGINES, AND ACCESSORIES.				
1.401	Special aviation clothing and similar equipment.....	30,000		30,000
2.401	Airplanes and their spare parts.....	17,784,655	2,900,000	20,684,655
3.401	Balloons and their spare parts.....	442,700		442,700
4.401	Airships and their spare parts.....	3,181,000		3,181,000
5.401	Engines and their spare parts.....		1,371,500	1,371,500
6.401	Instruments and accessories for aircraft and engines.....	250,000	50,000	300,000
7.401	Ordnance equipment for aircraft.....	60,000		60,000
8.401	Radio equipment and supplies for aircraft.....		30,000	30,000
9.401	Machines, general equipment, and tools.....	560,000	40,000	600,000
10.401	Photographic equipment and supplies for use in connection with aerial observation.....	412,000	56,000	468,000
	Total.....	22,720,355	4,447,500	27,167,855

Air Service estimate for fiscal year ending June 30, 1922—Continued.

Item No.	Item of expenditure.	Operation.	Experi- mental stations and research.	Total.
	IMPROVEMENT OF STATIONS, HANGARS, SHOPS, GAS PLANTS, AND LANDING FIELDS.			
0406. 401	Gas plants, hangars, and repair shops, construction of...	\$9,048,000		\$9,048,000
	MISCELLANEOUS.			
0111. 401	Printing plants at Air Service stations, purchase of equipment and supplies for.....	9,000	\$23,000	32,000
0311. 401	Printing plants at Air Service stations, maintenance and repair of.....		4,000	4,000
0215. 401	Printing and binding. Government Printing Office.....	60,700	15,000	75,700
0207. 401	Officers' expenses while travelling by air.....	90,000	10,000	100,000
0220. 401	Officers' mileage properly chargeable to Air Service ap- propriations.....	50,000		50,000
0208. 401	Damages, claims for not exceeding \$250.....	10,000		10,000
0219. 401	Salvaging wrecked aircraft, supplies and services in con- nection with.....	25,260	8,000	33,260
0209. 401	Office equipment, purchase and repair of.....	77,660	20,000	97,660
0210. 401	Subscriptions to foreign and professional periodicals and newspapers.....	8,000		8,000
0216. 401	Miscellaneous services not properly chargeable to other items.....	75,000	50,000	125,000
0218. 401	Miscellaneous supplies and equipment not properly chargeable to other items.....	115,056	36,000	151,056
	Officers' tuition.....	13,750		13,750
	Maneuvers, operations.....	100,000		100,000
	Total.....	634,426	166,000	800,426
	Fuel and lubricants.....	3,507,059		3,507,059
	Grand total.....	48,741,000	11,259,000	60,000,000

Status of appropriation "Air Service, Army, 1920," as of Dec. 1, 1920.

Appropriation	\$25,000,000.00
Credits to date.....	817,950.90
	<u>\$25,817,950.90</u>
701. Maintenance and operation of aviation schools	254,710.32
702. Photographic supplies for aerial observ- ers	120,610.15
703. Improvements in aviation stations, balloon schools, and testing plants.....	5,705.75
704. Maintenance and operation of stations....	2,016,221.51
705. Development of helium.....	483,691.00
706. Utilities at stations.....	475,137.85
707. Lease of lands and rental of buildings....	409,175.04
708. Salaries and expenses of civilian employees	8,109,683.70
709. Experimental and research.....	2,411,386.45
710. Production and purchase of airplanes and their spare parts (this item has been used this year for maintenance).....	4,286,483.89
711. Production and purchase of balloons and airships and their spare parts (this item has been used this year for mainte- nance)	746,679.66
712. Production and purchase of engines and their spare parts (this item has been used this year for maintenance)	1,536,679.00
713. Production of instruments and accessories for aircraft and engines.....	793,723.99

¹ These figures secured from office of Chief of Finance.

714. Construction of gas plants, hangars, and repair shops-----	\$879,061.11	
715. Purchase, manufacture, and issue of special aviation clothing and similar equipment-----	2,824.27	
716. Necessary expenses connected with disposal of surplus material-----	2,247,517.01	
717. Services of consulting engineers-----	2,572.00	
718. Establishment of aviation stations in the Philippine Islands-----	350,000.00	
719. Claims for damages not exceeding \$250---	1,496.93	
720. Expenses of officers while traveling by air---	2,000.00	
721. Miscellaneous expenses-----	457,028.82	
	25,592,388.45	
Amount available for future allotment---	225,562.45	
		\$25,817,950.90

Quotas assigned to the item numbers of the appropriation, Air Service, Army, 1921, for expenditures during the current fiscal year.

[Dec. 3, 1920.]

Item No.	Purpose.	Quota assigned to item for new fiscal year.	Obligated Dec. 1, 1920.
508 401	Aviation stations, schools, and depots, establishment, enlargement, and improvement of.....	\$245,000.00	-----
	Civilians:		
601 401	Pay of, in office of Chief of Air Service.....	969,238.00	\$510,000.00
602 401	Pay of, in field.....	8,500,000.00	4,026,693.03
603 401	Traveling expenses of, on rolls in office of Chief of Air Service.....	30,000.00	2,500.00
604 401	Traveling expenses of, on field rolls.....	112,600.00	25,900.85
605 401	Pay of consulting engineers.....	25,000.00	4,500.00
606 401	Traveling expenses of consulting engineers.....	6,000.00	500.00
607 401	Damages, claims for, not exceeding \$250.....	10,000.00	232.40
	Experimentation and research (except helium):		
701 401	Airplanes and accessories.....	332,390.14	332,390.14
702 401	Balloons, airships, and accessories.....	689,502.00	115,868.27
703 401	Engines and accessories.....	231,075.00	231,075.00
704 401	Medical.....	25,000.00	25,000.00
705 401	Gas plants, hangars and repair shops, construction of.....	1,997,174.00	48,674.00
	Helium:		
801 401	Purchase of land for development of.....	-----	-----
802 401	Lease of land for development of.....	150,000.00	150,000.00
803 401	Construction, maintenance, equipment, and operation of plants.....	588,500.00	140,500.00
804 401	Experimentation with and exploration for.....	70,000.00	30,000.00
	Hydrogen:		
901 401	Purchase of.....	150,000.00	47,756.00
902 401	Maintenance, equipment, and operation of plants for production of.....	158,600.00	80,221.00
	Instruction (Air Service schools):		
971 401	Purchase of equipment, material, and instruments.....	180,000.00	99,796.15
972 401	Maintenance and repair of equipment, material, and instruments.....	34,500.00	11,695.76
973 401	Leases and rentals (except for material disposal), lands and buildings.....	250,000.00	-----
	Maintenance and repair:		
991 401	Airplanes.....	1,674,049.95	324,801.00
992 401	Airships.....	243,500.00	8,050.00
993 401	Balloons.....	38,000.00	19,873.04
994 401	Buildings and grounds at Air Service stations.....	3,183,254.04	153,254.30
995 401	Engines.....	1,215,811.68	273,902.30
996 401	Instruments and accessories for aircraft and engines.....	70,000.00	35,505.00
997 401	Machines, general equipment, and tools.....	100,000.00	64,078.10
998 401	Ordnance equipment for aircraft.....	3,000.00	2,200.00
999 401	Photographic equipment and supplies.....	30,000.00	16,418.45
1000 401	Radio equipment and supplies.....	10,000.00	5,900.00
	Material disposal:		
101 401	Hire of employees.....	780,000.00	646,319.26
102 401	Traveling expenses of employees.....	12,000.00	4,185.00
103 401	Rental of buildings and storage space.....	-----	-----
104 401	Miscellaneous.....	32,000.00	30,921.23
	Miscellaneous:		
105 401	Services.....	65,000.00	54,869.67
106 401	Supplies and equipment.....	144,881.00	74,881.14

Quotas assigned to the item numbers of the appropriation, Air Service, Army 1921, for expenditures during the current fiscal year—Continued.

Item No.	Purpose.	Quota assigned to item for new fiscal year.	Obligated Dec. 1, 1920
	Miscellaneous—Continued.		
0210. 401	Subscriptions to foreign and professional periodicals and newspapers.....	6,000.00	4,864.11
0706. 401	Purchase of text books, books of reference, and other publications.....	10,000.00	8,005.00
0209. 401	Office equipment, purchase and repair of.....	60,000.00	26,874.11
	Offices:		
0207. 401	Expenses while traveling by air.....	65,700.00	65,700.00
0220. 401	Mileage.....	75,300.00	75,300.00
	Printing and binding:		
0215. 401	At outside agencies.....	74,000.00	37,285.60
0111. 401	Purchase of equipment and supplies for printing plants at Air Service stations.....	22,000.00	11,419.75
0311. 401	Maintenance and repair of.....	1,000.00	500.00
	Purchase and production:		
0101. 401	Special aviation clothing and similar equipment.....	25,000.00	6,035.44
0102. 401	Airplanes.....	3,255,689.33	860,401.21
0103. 401	Balloons.....	199,181.00	93,084.00
0104. 401	Airships.....	712,000.00	
0105. 401	Engines.....	3,077,834.00	527,834.00
0107. 401	Instruments and accessories for aircraft and engines.....	340,000.00	217,711.75
0112. 401	Ordnance equipment for aircraft.....	3,000.00	976.50
0113. 401	Radio equipment and supplies for aircraft.....	13,000.00	12,000.00
0705. 401	Machines, general equipment and tools.....	350,000.00	219,820.21
901. 401	Photographic equipment and supplies.....	185,000.00	87,051.90
0219. 401	Salvaging wrecked aircraft, supplies and services in connection with.....	25,000.00	15,200.00
0509. 401	Selfridge Field, acquisition of.....	190,000.00	
	Utilities:		
0501. 401	Sewerage systems.....		
0502. 401	Water.....	3,500.00	3,500.00
0503. 401	Light and power.....	31,500.00	31,500.00
0504. 401	Telephone and telegraphs.....		
	Engineering reserve.....	354,219.86	
	Reserve, Secretary of War.....	2,000,000.00	
	Total of appropriation, Air Service, Army.....	33,435,000.00	9,905,522.91
	Amounts apportioned to other agencies, but included in quotas above:		
0508. 401	To Quartermaster General, construction.....	\$245,000.00	
0509. 401	To Quartermaster General, purchase Selfridge Field.....	190,000.00	
0505. 401	To Quartermaster General, rentals.....	250,000.00	
0304. 401	To Quartermaster General, maintenance and repair of buildings.....	2,730,000.00	
0201. 401	To chief of finance.....	2,625.00	
	Reserve, Secretary of War.....	2,000,000.00	
		5,417,625.00	
	Amount apportioned to Chief of Air Service:		
	First quarter.....	14,314,875.00	
	Second quarter.....	7,067,500.00	
	Third quarter.....	4,317,500.00	
	Fourth quarter.....	2,317,500.00	
		28,017,375.00	

The following is the statement of the number of planes purchased during the last year, and those planned for purchase this year, and also a statement of the planes included in this estimate:

Planes purchased fiscal year 1920, appropriation Air Service, Army. 1920

958. DH-4's converted into DH-4B's	\$1,422,732.00
3. Metal monoplanes.....	100,000.00
1. Giant bombing plane.....	138,405.00
50. Thomas Morse M.B.-3's.....	750,432.00
50. Orenco D's.....	570,104.00
22. XB-1-A	295,220.00
Total	3,237,114.00

Planes purchased fiscal year 1920 from other funds.

18. XB-1-A's (observation)-----	\$241, 600. 05
20. Martin bombers-----	1, 228, 870. 31
10. Gas attack planes-----	540, 753. 76
2. Barling bombers (long distance)-----	375, 000. 00
Total -----	2, 386, 224. 12

Program of airplane construction, fiscal year 1921.

Convert 250 DH-4's into DH-4B's-----	\$495, 288. 13
Purchase 200 Thomas Morse M.B.-3's-----	2, 400, 000. 00
25 Messenger planes-----	100, 000. 00
16 Martin planes-----	600, 000. 00
400 Wright-H engines-----	3, 200, 000. 00
50 Lawrence radials engines-----	150, 000. 00
Total -----	6, 945, 288. 13

ALLOCATION OF \$17,784,655, ESTIMATE OF FUNDS FOR AIRPLANES AND MOTORS FOR FISCAL YEAR 1922.

The following is the allocation of the \$17,784,655 allotted by the Air Service for the purchase of heavier-than-air equipment (airplanes and motors) according to the types recommended to be purchased. This allocation is made with the recognition of the fact that the equipment purchased by the money allotted will not be fabricated prior to the close of the fiscal year 1922, inasmuch as it will take nearly a year before the deliveries can be made on production orders.

(a) Attack, 45 airplanes with spares-----	\$1, 395, 000
(b) Bombardment, 244 airplanes with spares-----	7, 567, 500
(c) Observation, 462 airplanes with spares-----	5, 785, 135
(d) Pursuit, 112 airplanes with spares-----	1, 369, 200
(e) Training, 200 airplanes with spares-----	1, 254, 000
(f) Remodeling 209 DH 4's into DH 4-B's needed in fiscal year 1922-----	413, 820
Total-----	17, 784, 655

Mr. ANTHONY. That is out of the 1920 appropriation?

Gen. MENOHER. Yes. Then I have the program of construction for the fiscal year 1921.

CONSTRUCTION PROGRAM.

EXPERIMENTS, ALTERATIONS, ETC., OF PLANES.

Mr. ANTHONY. What planes have you purchased out of the 1921 appropriation?

Gen. MENOHER. They are in progress now.

Mr. ANTHONY. What have you in progress of construction?

Gen. MENOHER. The conversion of 250 De Haviland machines, making alterations, to make them safer and better planes. You have heard a good deal about the flaming coffins, the De Haviland machines, and about the number of deaths that have occurred from the use of the De Haviland plane. One of the principal causes of the death of the pilots in that machine was that the pilot was between the engine and tank. Away out in front was the engine, and then the pilot, then the heavy gasoline tank, and in the rear of that was the observer. We exchanged the location of the pilot and the tank, and put the tank next to the engine and the pilot next to the observer, so in case of a crash the heavy tank would not have the pilot

between it and the engine; we have about 1,000 converted, and we are working on 250 more.

Mr. SLEMP. What was the result of your experiment on falls?

Gen. MENOHER. With that plane?

Mr. SLEMP. Have you had any accidents since then?

Gen. MENOHER. Yes, sir; but we find the pilot is not caught between the engine and the tank.

Mr. SLEMP. That has been demonstrated?

Gen. MENOHER. Yes; and it balances the ship very much better; it puts the pilot back where he can communicate directly with the observer. They can pass notes back and forth and one man can reach and touch the other. It is a very much better ship in every way after the conversion is made.

Mr. SLEMP. What does it cost to make that change?

Gen. MENOHER. The alterations cost about \$1,200 per ship, and when we have them knocked down for alterations we examine the whole plane and make such repairs due to the deterioration or use that are found necessary. That whole operation costs in the neighborhood of \$2,000 per plane. But it gives a plane that is very serviceable. I might state that we flew this last season 478,000 miles in the forest-patrol work in these planes.

Mr. SLEMP. It gives you a plane suitable for one type of service?

Gen. MENOHER. For light bombing and observation.

Mr. ANTHONY. What part of the \$33,000,000 appropriated last year have you used for the construction of combat planes, the type in which we have heretofore been deficient?

Gen. MENOHER. That has not been expended yet. Gen. Mitchell is at McCook Field, testing out the ones we propose to put into production.

Mr. ANTHONY. That is what you were doing a year ago when I was at Dayton.

Gen. MENOHER. That is from another fund; that is from the 1921 appropriation.

Mr. ANTHONY. Have you determined yet upon the type of combat plane?

Gen. MENOHER. Yes, sir; we are going to convert 250 more De Havilland 4's, purchase 200 Thomas Morse pursuit planes, 25 messenger planes for communication work, 16 Martin bombers, 400 of one type of engine—the Hispano-Suiza—and 50 of the Lawrence engines, making about \$6,945,288.13.

Mr. ANTHONY. That you are going to use out of the \$33,000,000?

Gen. MENOHER. That we are going to use out of the \$33,000,000 for the purchase of planes.

Mr. ANTHONY. Are any of the planes of the type with which you propose to equip these squadrons of the fighting air force?

Gen. MENOHER. Yes, sir; wherever these are applicable. I have given you a statement of the organizations we were authorized to create.

Mr. ANTHONY. What planes are you going to arm your fighting squadron with?

Gen. MENOHER. The Thomas Morse.

Mr. ANTHONY. That is a fast pursuit combat plane?

Gen. MENOHER. That is a fast pursuit combat plane. During the races at Long Island recently we flew a stock Thomas Morse plane. It was not especially made or tuned up for the race, and the pilot made 171 miles per hour with it. That is the fastest pursuit plane in the world.

Mr. ANTHONY. Does that plane fill all the qualifications desired in a fighting plane?

Gen. MENOHER. I think it does.

Mr. ANTHONY. It is the ultimate thing in fighting airplanes?

Gen. MENOHER. No, sir; it is not an ultimate.

Mr. ANTHONY. Up to this date?

Gen. MENOHER. Up to this date, I think it is the fastest pursuit plane in the world.

Mr. ANTHONY. So if you go into extended production under this new appropriation, it will be with planes of that type?

Gen. MENOHER. Yes, sir; but that will be only one of the types.

Mr. ANTHONY. Are the men who fly the machines in the service pretty well satisfied with that type?

Gen. MENOHER. I think so; yes, sir. We had also during those races a new design known as the Verville-Packard, which is a product of Dayton, and which made 188 miles per hour over a measured course. It made the 132 miles around the triangular course four times at the rate of 178 miles per hour.

Mr. ANTHONY. Is that much of an improvement over the Spad type developed during the war?

Gen. MENOHER. I think so; yes, sir.

PERSONNEL.

Mr. CRAMTON. In your original estimate, what was the enlisted personnel you figured on?

Gen. MENOHER. We are figuring on the personnel authorized by the reorganization act of 1,516 officers and 16,000 men.

Mr. CRAMTON. The same personnel was in the original estimate as is in the present one?

Gen. MENOHER. Yes. I would like to state that I made a statement before the legislative committee the other day that a list of our enlisted men with their qualifications looks more like a chart of trades than a roll of a military organization. Our enlisted men have to take care of the machines, keep them tuned up, and ready for the air, and we require skilled mechanics for that purpose. Every time a plane goes into the air it must be examined, and after it comes down it must be overhauled and gotten ready to go up again, and that requires constant attention on the part of the officer to see that the plane is overhauled, and it requires great skill on the part of the personnel to do the work. The officer can not do it all himself. He has enough to do when he goes into the air and flies. He has to take some rest. It is a great strain on him to do that. The enlisted men must be trained men and we must have those men so that we can keep the planes in proper condition.

I have with me, Mr. Chairman, Col. Fuller, who is chairman of the advisory board of the Air Service, and who handled the details of the preparation of the estimate. Then I have also present the

chief of each one of the operating groups in the Air Service to answer any questions the committee may desire to ask in regard to the details of the estimate.

Mr. ANTHONY. Your agreement, as I understand it, is that it is either impossible or inadvisable to reduce the maximum number of enlisted men authorized by the reorganization act, even if we do reduce the total number of enlisted men in the Regular Army?

Gen. MENOHER. Yes, sir; we have felt all the time that 16,000 was too small and that the number of officers allowed was too small because we can not answer the demands made on use with that number. At the present time we have 8,800 enlisted men and 1,071 officers.

Mr. ANTHONY. We decided that an enlisted personnel strength of 16,000 for the Air Service was commensurate with the total strength of 283,000 men, and you say that with an Army of 175,000 men you can not reduce your force proportionately.

Gen. MENOHER. The question of overhead is one thing. The overhead of the Air Service is going to remain about the same. We are called upon to organize and assist in the training and furnish material for the organizations for the National Guard, and also for the organized reserve, because we have now 5,300 reserve officers, unorganized and unclassified, who are flyers, and we have 2,000 more who are nonflyers.

Mr. ANTHONY. Have you had a board in the Air Service which recently looked into this question of the advisability of keeping this country prepared in the air on a war basis?

Gen. MENOHER. Yes, sir.

Mr. ANTHONY. Or whether we should keep it prepared on what might be called a peace basis in the air?

Gen. MENOHER. Yes, sir.

THEORY OF ORGANIZATION.

Mr. ANTHONY. Is this not true that that board has found if the country is confronted again by war conditions that it would be more feasible to defer taking up the expansion of the Air Service than to try to make an expansion here?

Gen. MENOHER. I would like to have Col. Fuller answer that question and give you the details about that.

Col. FULLER. Mr. Chairman, the idea you express there is one we have taken as the guiding principle, namely, that the Regular Army force of the Air Service should be nothing more than that necessary to carry on the problems of production, supply, maintenance, repair, and training in the Air Service and with the Army. The Air Service of the Regular Army, with 16,000 men, is primarily for those purposes, there being only one each of the type of tactical combat units required—that is, the group: one pursuit group, only one bombardment group, one attack group—and the whole idea is that the main portion of the Air Service should be built up in the National Guard and organized reserve.

The report made by the Air Service to the General Staff on the subject of the organization of the Air Service was based on that theory. One reason why that is desirable, in addition to the very great expense, whatever the system may be, is that the effectiveness of

the flyer would last but a few years, and it would be totally impracticable to have in the Army a proportionate number of officers coming into the lower grades and becoming noneffective as combat flyers as they grow older. That effectiveness must be built up in a service where they are not remaining permanently on the Government roll, and it can be done cheaper in the reserve and in the National Guard.

So the Regular Army Air Service is really, as Gen. Menoher said, an overhead, including supply, maintenance, and instruction—a means for generating an Air Service—and that is all there is to it; and even in determining the strength of the officer personnel of the Regular Army we recommended to the General Staff that for the units we have in the Regular Army—the tactical units—that the officer personnel be not filled up to the normal quota in the approved tables of organization, but rather, for that purpose, the wise provision in the reorganization act be taken advantage of, to call in for a limited term of service with the Regular Army reserve officers to supplement the 1,516 Regulars to meet requirements. That is the theory of the whole organization.

Then, back of that, there are other fundamentals. The proposition is that the Air Service depends more upon the enemy's naval and air strength than anything else. It is more intimately connected with our naval strength than it is with our Army strength, except for that portion which performs a service for the Army, such as carrying an observer into the air to direct artillery fire.

We firmly believe that the first attack would probably come through the air in conjunction with the naval action. Those principles are recognized here in a document published by the Army and Navy in a statement of joint policy. When I say those principles are recognized, I mean that the action of the Army Air Service in conjunction with the Navy Air Service and the Navy in the first line of defense off the coast is a recognized and approved policy.

FUTURE COST OF PRESENT PLANS.

Mr. ANTHONY. Even though you adopt that principle, how do you account for the fact that your demands for appropriations are growing larger every year?

Col. FULLER. Yes, Mr. Anthony. If this Air Service be built up to meet these requirements it is going to cost many times \$60,000,000 each year.

Gen. MENOHER. This appropriation is not larger than the one asked for last year. I think we first asked for \$157,000,000, and we came in finally with the same amount, as I recollect it, last year as this year, \$60,000,000, and we were allowed \$33,000,000 out of that.

EFFECTIVENESS OF THE AIRPLANE AS A COMBAT FORCE.

Mr. CRAMTON. To what extent do you regard the Air Service as a combat force?

Col. FULLER. The Air Service is absolutely a combat force, recognized so by law; the reorganization act designates it as a combat force, a combat arm; and there is no part of it—no element of it—that is not combat, even the observation, which has for its primary mission the performance of this service.

Mr. CRAMTON. Is it so regarded by the Chief of Staff?

Col. FULLER. There is no question about the General Staff being firmly behind us.

Mr. CRAMTON. I did not so understand the Chief of Staff in his statement before this committee.

Col. FULLER. I am not qualified to say.

Mr. CRAMTON. I got the impression that the Air Service is still an auxiliary and regarded as simply the scouting branch by the Chief of Staff and the present Secretary of War.

Gen. MENOHER. I think this will be an auxiliary to what will always be the main fighting force, the Infantry.

Gen. LORD. I think the Chief of Staff referred to it as the fourth combat arm.

Mr. CRAMTON. Would control of the air by us have any effect on preventing an invasion, otherwise than from the north or south?

Col. FULLER. Decidedly so. May I read an extract from this approved joint Army and Navy document, signed here in the preface by the Secretary of War and Secretary of the Navy? [Reading:]

JOINT ARMY AND NAVY ACTION IN COAST DEFENSE.

[Excerpts.]

* * * * *

The primary missions or functions of the military forces in coast defense are as follows:

(a) Intelligence Service: Reports all enemy forces approaching or operating off the seacoast.

(b) Air Service:

(1) Pursuit planes attack all enemy aircraft operating over and off the seacoast and enemy landing parties; protect Army and Navy aircraft against enemy aircraft.

(2) Bombing planes attack all enemy vessels off the seacoast and enemy landing parties.

(3) Observation planes assist in directing the fire of batteries, particularly when firing at long range.

(4) Observation balloons assist in directing fire of batteries at all ranges.

(5) Dirigibles assist Intelligence Service; assist in directing fire of batteries particularly when firing at long ranges; attack enemy vessels off the seacoast and enemy landing parties.

(c) Harbor defenses.

* * * * *

(d) Mobile forces.

* * * * *

(1) Enemy aircraft attacks on our seaports can be launched in two ways:

(a) From a land base.

(b) From a ship base.

In order to carry out an effective bombing attack, it is necessary for the enemy to have a base within several hundred miles of the object of attack.

* * * * *

In launching attacks from a ship base two kinds of ships can be used:

(a) Aircraft carriers, which carry planes assembled and ready for use on short notice, and have a flying-off deck from which airplanes may rise and land on which they may land.

(b) Aircraft tenders, which may either accompany seaplanes as they move from place to place, providing quarters for the plane crews, supplies of fuel, oil, and spare parts and repair facilities, or which may carry the seaplanes and airplanes, so that after arriving at the place for launching the attack, seaplanes may be assembled and lowered over the side and airplanes taken ashore and assembled for use from a beach or field.

The development of aircraft carriers has been rapid and generally successful. Fighting planes, observation planes, scouting planes, and torpedo and bombing planes may be used. The planes are stowed below; the smaller types can be raised to the flying-off deck by elevators and can take off immediately; the larger types must have their wings attached after having been raised to the flying-off deck, and this causes a certain delay in sending them out and receiving them aboard. Specially designed aircraft carriers of 10,000 tons can carry about 25 planes of various types. Landing on the flying-off deck presents some difficulties, and a considerable percentage of crashes must be expected, especially in rough weather.

* * * * *

In carrying out a bombing attack from a carrier the bombing planes should be accompanied by fighting planes for protecting them from the attack of enemy fighting planes, if any are present, and for assisting the bombers by attacking with machine-gun fire and small bombs enemy forces on the ground, particularly antiaircraft batteries and fire-control stations.

* * * * *

Airplanes are more efficient than seaplanes for bombing and torpedo attacks, because they can carry a greater load of bombs or a larger torpedo. It is possible that aircraft tenders could land bombing and torpedo planes near the port to be attacked, assembling the planes ashore, and having them take off from a beach or field.

* * * * *

The objects of attack by enemy aircraft will usually be:

A. By bombs—(1) Dry docks, (2) navy-yard shops and fuel-oil tanks, (3) naval vessels, (4) merchant vessels, and (5) industrial plants of military importance.

B. By torpedoes—(1) Caissons of dry docks, (2) floating dry docks, (3) naval vessels, and (4) merchant vessels.

* * * * *

Air forces.—The air forces will have an important function in seacoast reconnaissance. They will also be able to attack hostile warships and transports, thus contributing to harbor defense and to coast defense as a whole. It is possible that they may also develop a capacity to convey supports at high speed to distant beach defense sectors. They should be able, with machine guns and bombs, to take an effective part in the beach combat itself, especially at points of penetration and before other reserves can arrive.

* * * * *

Mr. ANTHONY. Using that line of argument, the Air Service is necessarily the second line of defense. The Navy is the first line?

Col. FULLER. That is primarily so, but I think it is well that we should understand exactly how that applies. If that line, the blue-sea fleet, be carried to the enemy's borders across the ocean, the Navy is clearly the first line of defense, and the principle is clearly defined between that naval action and the other action of the Army and Navy in coast defense. If the enemy were to have superiority of the sea, or at any one point, our fleet being in another ocean, then the Air Service, cooperating with the Navy, in coast defense is as much first line of defense as is the Navy, because its action is merged with that of the Navy.

Mr. ANTHONY. When you get down to the practical side of it, there never has been an instance where an airplane has been launched from a vessel or from a hostile shore or a hostile vessel that has ever done the slightest damage to an enemy, is there? This is all problematical, all of this argument?

Col. FULLER. The action during the recent war was concentrated and the last bit of strength of every combatant nation to the one main action on land. It would be interesting, I think, for the committee to look at this photograph.

Mr. SLEMP. Is that a photograph showing the experiment on the *Indiana*?

Col. FULLER. Yes.

Mr. SLEMP. There you had a battleship anchored, where you could take pot shots?

Col. FULLER. This does not show the entire effect. The experiments were carefully made to show what the results would be under certain circumstances.

Mr. SLEMP. That is interesting in showing the power of explosives, but not to show the practical use of the air under hostile conditions.

Gen. MENOHER. Of course, the other fellow was not shooting back, but the percentage of hits they made on the enlarged target shows that the explosive does more damage then than when it makes a direct hit, and the number of hits on the enlarged target and on the water immediately surrounding it show that it is a very effective weapon. Of course, they got only 11 per cent actually on the target and four or five times that many on the enlarged target.

Mr. ANTHONY. We were told at the beginning of the war how effective the bombing operations from airplanes would be carried on against a hostile force, but we did not see many practical results in that line of operations. Every demonstration I have seen or read about seems to show that you have not developed very much effectiveness in the use of explosives in the air.

Gen. MENOHER. The effect can not be measured entirely by the material damage, because much of the effect was on the morale of the men.

Mr. Sisson. Except for scouting purposes, the whole Air Service is practically in its experimental state as to what it may develop in the future.

Gen. MENOHER. We feel that we are morally certain as to the outcome.

Mr. Sisson. Are you certain that you will be able to destroy battleships and put navies out of business?

Gen. MENOHER. I think we are going to come to that.

Mr. Sisson. When?

Gen. MENOHER. It is a question of development.

Mr. Sisson. Therefore, that much of it is purely experimental. Do you believe the experiments show that in the future you will be able to carry into the air a sufficient amount of explosives and direct them with sufficient accuracy from high points to be able to let them fall onto a battleship and destroy it? That is still in the experimental state, is it not?

Gen. MENOHER. In a great measure.

Mr. Sisson. Now, in connection with the destruction of forts and the destruction of armies in the field and in the trenches, that is still in the experimental stage, is it not?

Gen. MENOHER. In a measure.

Mr. Sisson. As to its use as a fighting unit and in the final determination of the war, that is not so sufficiently demonstrated yet that we would be willing to develop our Air Service with the expectation of destroying an invading fleet or destroying an invading army. Those are the dreams people have about the Air Service. I can dream about it, and we ought to dream about it, and you have got

to dream before you can build bridges to cross great chasms. It is the dreamer who finally brings about all great results in the end, and we are still dreaming in the Air Service.

Gen. MENOHER. But you would not stop the dreamer from dreaming?

Mr. Sisson. Absolutely not. On the contrary, I am a great believer in the development of the Air Service and I do not think America ought to be behind in the development, but ought to lead in that development. But is there anything wrong in the admission that except for scouting purposes, where it has proven to be a marvelous success, the best scouting arm of an army, that the balance of it is largely in the experimental stage?

Gen. MENOHER. I would not admit that, entirely. There are other uses, as, for example, in attack.

Mr. Sisson. Attack of what?

Gen. MENOHER. Attack on troops on the ground.

Mr. Sisson. Yes; they drop gas.

Gen. MENOHER. That was never undertaken; we did not do that to any extent.

Mr. Sisson. The Germans always contended that, so far as I have been able to learn, it was the effect it had upon the people and the army itself. The bombing of Paris did not do any very great damage to the city as a whole, but it kept the people constantly terrorized.

Gen. MENOHER. It did that with the troops on the line. The moral effect is very great.

Mr. Sisson. Dewey said, "It is the unseen danger that makes cowards of us."

Gen. MENOHER. It made our problem much more difficult.

REAL USE OF THE AIRPLANE.

Mr. ANTHONY. Aside from scouting and information purposes, the real use of the airplane is to combat the enemy in the air.

Gen. MENOHER. You have to do that.

Mr. ANTHONY. That is air against air.

Gen. MENOHER. Sixty per cent of our planes will be pursuit planes.

Mr. Sisson. That is for the purpose of destroying the enemy's planes—to put out its eyes. I think Gen. Squier, in testifying before the committee in the beginning of the development of this Air Service, at the time they got their first appropriation, used that expression, that if we can overcome the enemy in the air we put out his eyes.

Gen. MENOHER. Answering the specific question asked Col. Fuller about the control of the air and the effect upon an invasion, I may be dreaming again, but I believe from the air alone we can prevent an invasion.

DEVELOPMENT OF THE AIR SERVICE—TRAINING OF RESERVE FLIERS.

Mr. ANTHONY. In making this appropriation at this time, ought we not to make the appropriation with the idea rather of developing the Air Service than continuing to furnish personnel ready for action in the event of war?

Gen. MENOHER. That is what we aim to do with this money we are asking for. It is for the development.

Mr. ANTHONY. The training for war will largely have to be done when the war breaks out.

Gen. MENOHER. There is no question about that.

Mr. ANTHONY. For the reason that the life of the flier is so short that it will be utterly impracticable to train many fliers at the same time. The expense would be enormous. Therefore if you have a nucleus of a well organized unlimited source of supply of the parts, so that it may be rapidly developed, and a sufficiently large number of officers, and a sufficiently large number of fliers to instantly put the young men in training, that, as I understand it is the real purpose of the Air Service now.

Gen. MENOHER. Yes, sir. I have in mind the matter of keeping a certain reserve trained. We have 2,500 cadets.

Mr. ANTHONY. That comes out of the Air Service fund, does it not?

Gen. MENOHER. We are authorized to have 2,500 cadets a year under training.

Mr. ANTHONY. Aside from that, this reserve costs the Government nothing, after the men leave the service?

Gen. MENOHER. Little or nothing. My idea is that with these 2,500 cadets we train, we will give them a year's training and then send them to the reserve, keeping such as we may be authorized to keep from time to time for a stated period on active duty with the Regular Army, and I have asked for 500 first and finally 250 officers from the reserve on active duty with the Army.

BOMBING OF BATTLESHIP "INDIANA."

(See p. 373.)

Mr. SLEMP. In connection with the *Indiana* experiment, did you put in the record a statement showing at what altitude the bombs were dropped, and whether they would be out of the range of the antiaircraft guns?

Col. FULLER. They were not dropped in the way you seem to have in mind. This was a very carefully-conducted experiment to demonstrate what the effect would be with the bombs dropping in certain places.

Mr. SLEMP. What I want to know is, have you made any experiment in regard to hitting a moving vessel?

Gen. MENOHER. They dropped 100 bombs, and got 11 per cent of hits.

Mr. SLEMP. At what rate were the bombs put down and at what rate was the target going? Were they out of range of antiaircraft guns?

Gen. MENOHER. As I recollect it they were 5,000 feet up.

Mr. SLEMP. And dropped on a fixed target?

Gen. MENOHER. I think so.

Mr. SLEMP. Are you sure about the 5,000 feet or was it 8,000 feet?

Gen. MENOHER. It was either four or five thousand.

Mr. ANTHONY. That is well within the range of the antiaircraft guns?

Gen. MENOHER. The antiaircraft guns are notoriously ineffective, or were, on the other side, so there is always a chance for the fighting man to get away or get through the antiaircraft barrage.

Mr. SLEMP. There were not any airplanes used from battleships?

Gen. MENOHER. No; but if you compare the number of hits they get with the number of hits that the seacoast guns at 25,000 yards the difference is in favor of the bomb dropper.

Mr. SLEMP. The seacoast gun does not hit more than 11 per cent?

Gen. MENOHER. With those long ranges.

Mr. SLEMP. But you say you have not got long ranges.

Gen. MENOHER. We have the long range in the matter of dropping.

Mr. SLEMP. You will be kept higher than 5,000 feet.

Gen. MENOHER. In comparison with your long-range guns you have got to compare the radius of action with the radius of action of the gun. We can go out more than 25,000 yards with the plane; we can go out 100 miles and expect to get an effect. The gun will reach only as far as it will shoot.

PLANES, ENGINES, ETC., ON HAND.

Mr. ANTHONY. General, of the one billion and more dollars appropriated for the use of the Air Service during the first year how much of the material is on hand now that was purchased with those sums of money and is available for use?

Gen. MENOHER. We have about 12,000 Liberty engines in store that are available and ready for use and which are cared for very carefully. We have some 2,000 De Haviland planes for those engines. We have some 2,000, as I recall, training planes, the Curtiss JN planes for training purposes, and we have about 450 of the Hispano-Suiza engines for pursuit planes. We have a good part of the plant that was purchased from those appropriations available still. We can give you a statement of the whole thing.

(The statement referred to above follows:)

Summary.

[This estimate compiled Dec. 28, 1920.]

Item	Original cost.	Salvage value.	Present cost to replace.
Airplanes on hand.....	\$135,183,172.00	\$1,958,160.00	\$55,817,000.00
Airplanes on order but not delivered.....	3,135,295.87	470,000.00	3,135,295.87
Airplanes, experimental, on order but not delivered....	1,447,600.00	106,500.00	1,447,600.00
Airplanes, foreign.....	4,302,000.00	35,850.00	4,302,000.00
Engines on hand.....	145,219,654.00	15,193,950.00	126,671,354.00
Foreign engines on hand.....	13,608,000.00	226,800.00	11,340,000.00
Miscellaneous supplies on hand.....	147,957,833.31	11,650,725.40	171,432,284.89
Miscellaneous supplies on order.....	494,865.05	49,486.50	494,865.05
Grand total.....	451,348,420.23	29,691,471.90	375,040,399.81

Miscellaneous.

Item.	Quantity.	Original cost.	Present appraised salvage value.		Present cost to replace.	
			Unit.	Total cost.	Unit.	Total cost.
					<i>Per cent.</i>	
Spare parts for airplanes.....		\$5,000,000.00	5 per cent....	\$250,000.00	120	\$6,000,000.00
Spare parts for engines.....		10,445,000.00	.....do.....	522,250.00	120	12,534,000.00
Aviator's clothing.....		3,367,000.00	50 per cent..	1,683,500.00	100	3,367,000.00
Airplane dope.....		943,000.00	1 per cent....	9,430.00	100	943,000.00
Machinery and tools.....		6,000,000.00	60 per cent..	3,600,000.00	100	6,000,000.00
Buildings and land.....		96,956,806.31	3 per cent ¹ ..	3,000,000.00	.....	113,696,007.89
Hangars, wood and canvas (in storage).	1,100	5,000,000.00	5 per cent....	250,000.00	60	3,000,000.00
Balloons, R.....	500	2,600,000.00	\$200.....	100,000.00	100	2,600,000.00
Balloons, spherical.....	35	85,000.00	\$1,000.....	35,000.00	150	127,500.00
Airships.....	12	870,000.00	10 per cent ¹ ..	87,000.00	100	870,000.00
Winches.....	305	2,000,000.00	\$500.....	152,500.00	60	1,200,000.00
Hydrogen gas plants, portable.	15	300,000.00	50 per cent..	150,000.00	100	300,000.00
Photographic supplies.....		1,615,000.00	33½ per cent ¹	535,000.00	125	2,018,750.00
Special bodies for motor transportation. ²	1,419	5,412,027.00	20 per cent..	1,082,405.40	100	5,412,027.00
Radio supplies ³		3,000,000.00	5 per cent....	150,000.00	300	9,000,000.00
Ordnance supplies ⁴		4,364,000.00	1 per cent....	43,640.00	100	4,364,000.00
Total.....		147,957,813.31	.....	11,650,725.40	.....	171,432,284.89
Airplane parts.....		⁵ 494,865.05	.....	49,486.50	.....	494,865.05
Grand total.....		148,452,698.36	.....	11,700,211.90	.....	171,927,149.94

¹ Approximately.

² The special bodies for motor transportation are those bodies and trailers which are designed for special Air Service use and do not come under the jurisdiction of the Motor Transport Corps. In addition to this amount the Air Service purchased and turned over to the Motor Transport Corps in compliance with General Orders transportation costing \$50,015,999.76.

³ The cost of old equipment on hand, representing a partial supply for 4,000 planes, with corresponding ground equipment, is approximately \$1,000,000 to replace which, in like quantity, by complete modern equipment adapted to American tactics, will cost an estimated sum of \$9,000,000.

⁴ In addition to the amount of Ordnance supplies shown under this heading, approximately \$4,740,000 worth has been turned over to the Ordnance Department or is under orders to be turned over to the Ordnance Department. This would give a total of \$9,104,000 expended for Ordnance equipment.

⁵ On order.

PROPOSED USE OF THE LIBERTY ENGINE.

Mr. ANTHONY. In reference to the Liberty engine, do you propose to use that in the construction of any of these new planes?

Gen. MENOHER. Oh, yes.

Mr. ANTHONY. Do you intend to use the Liberty engine in the combat plane?

Gen. MENOHER. Not in combat planes. We want to use it in the bombers and in the multi-engine planes and the observation planes, but we want a different type for the pursuit plane.

Mr. ANTHONY. Do you expect to spend most of the money you are asking for for the construction of the fast pursuit combat planes?

Col. FULLER. For pursuit planes we estimate \$1,369,112 for the Thomas Morse planes. We are expending this year \$5,600,000 out of a total of \$6,900,000 for pursuit planes.

Mr. ANTHONY. In which you do not use the Liberty engine?

Col. FULLER. In which we do not use the Liberty engine. For the Hispano-Suiza 300-horsepower engine, which would go with that, the sum of \$3,200,000 would be required.

Mr. ANTHONY. Of this year's appropriation which you are asking for construction, that amounts to how much?

Mr. FULLER. For the construction of airplanes for 1922 the amount asked for is \$17,784,650.

Mr. ANTHONY. In what proportion of the planes to be constructed under that item will you use Liberty engines?

Col. FULLER. \$14,700,000 worth.

Mr. ANTHONY. \$13,000,000 will be used for the heavy type of bombing planes?

Col. FULLER. \$14,700,000 for the bombing, observation, and attack planes.

Mr. ANTHONY. In which you would use the Liberty engines?

Col. FULLER. Yes, sir.

Gen. MENOHER. I am keeping the Liberty engines as a war reserve. There is no question but that the Liberty engine is as good as any engine, if it is not the best engine that has been made. Mr. Fokker made that statement.

Mr. ANTHONY. Do you think it is advisable to equip the Army with a large number of heavy bombing type machines?

Gen. MENOHER. The number will not be large.

Mr. ANTHONY. You say you are going to construct \$13,000,000 worth.

Col. FULLER. That is \$14,700,000 for bombing, observation, and attack.

Mr. ANTHONY. That is a large number, and the planes you have on hand now are largely of the bombing and observation type.

Gen. MENOHER. Light bombers only.

LIFE OF AIRPLANES.

Col. FULLER. I think this will clear one point in your mind. This material will not be available until the fiscal year 1923; by the end of 1922 everything we have now in the way of material, worth speaking of, will be used, except the engines in stock. That will be completely washed out and unusable; it will be four or five years old.

Mr. ANTHONY. You mean that even the Liberty engines will not be available after 1923?

Col. FULLER. Oh, yes, they will; they are in stock; they will be available.

Mr. ANTHONY. You mean all of the present planes we have on hand now?

Col. FULLER. Yes, sir; the planes themselves.

Mr. SLEMP. Then all we get out of the wreck is about 15,000 Liberty engines?

Gen. MENOHER. We have 7,400 Reserve officers on the roll now and 5,300 of them are pilots.

Mr. ANTHONY. That is the greatest asset?

DETERIORATION OF AIR PLANES.

Gen. MENOHER. Yes. Now, to go back to the matter of deterioration, we found from an examination of the De Havillands in that conversion, in the changing of the position of the tank, that there was some deterioration in the plane itself, and each time the plane

was torn down to be altered we went into the replacement of the parts that were deteriorated, and it cost about as much to do that as to alter the plane.

Mr. SLEMP. They are deteriorating without use?

Gen. MENOHER. Yes.

Mr. SLEMP. How does a plane deteriorate in storage?

Gen. MENOHER. That is not understood entirely, but it is a fact that the fabric deteriorates and the wood deteriorates under the conditions under which it is kept and handled.

DEVELOPMENT OF ALL-METAL PLANES.

Mr. SLEMP. That is an argument against building large quantities ahead against the time when you are going to use them?

Gen. MENOHER. That is, and one of the principal things we have in mind is the all-metal plane.

Mr. SLEMP. You want to get away from the wood?

Gen. MENOHER. We want to get away from the wood, and the principal item in our experimental work at McCook Field is in connection with all-metal construction. The all-metal construction is coming as sure as fate.

NUMBER OF SQUADRONS ORGANIZED.

Mr. ANTHONY. You say you want to equip 26 fighting squadrons?

Col. FULLER. Four pursuit squadrons in the 16,000 proposed.

Mr. ANTHONY. Twenty-six squadrons was the number you wanted to create?

Gen. MENOHER. Twenty-six observation squadrons, 4 attack squadrons, 5 bombardment squadrons, and 4 pursuit squadrons.

Mr. ANTHONY. How many planes in a squadron?

Gen. MENOHER. In round numbers, there are 25, all told.

Mr. ANTHONY. How many actually compose a squadron, and how many are held in reserve?

Gen. MENOHER. Thirteen is the number of planes in the air for peace strength.

Mr. ANTHONY. And 12 in reserve?

Gen. MENOHER. Yes, sir; 100 per cent reserve, and then we have spare engines.

Mr. ANTHONY. How many men in each squadron?

Col. FULLER. I think the confusion comes in this way. I believe Gen. Menoher understood you to ask in reference to war strength. As to the peace strength squadrons, there are only 132 men to each squadron and 13 planes. We are not providing any reserve at all. We have adopted this policy, following your idea, that we will not provide a reserve, and we will only provide 50 per cent of spares which spares will last us one year only; although the plane will last two years, we are only going to ask for one year's supply of spares.

Mr. ANTHONY. How many squadrons have you organized now?

Gen. MENOHER. Twenty-seven.

Mr. ANTHONY. Are they actually organized, or on paper?

Gen. MENOHER. They are in being.

Col. SHERMAN. They are actually in being, 27 squadrons.

FOREST-PATROL WORK.

Gen. **MENOHER**. There is another thing I would like to say, and that is in reference to the demands made for forest-patrol work. We were authorized to have five squadrons on that work on the Pacific coast, but we could furnish only one, with a few additional planes. There is an effort being made now to extend that service to Washington, Idaho, and Montana.

ESTIMATE FOR CIVILIAN PERSONNEL.

(See pp. 246, 253.)

Mr. ANTHONY. One of the things I do not understand in connection with the appropriation for the Air Service is why you are called upon to expend so large a proportion of the total appropriation for overhead, administrative expenses, and civilian pay. Take, for instance, the item of \$9,000,000 for the pay of civilian employees in the Air Service. What is the necessity for such a large amount?

Gen. **MENOHER**. McCook Field takes \$2,600,000 of that.

Mr. ANTHONY. That is a big manufacturing plant?

Gen. MENOHER. It is a big experimental plant. At our various storage depots we also have some employees, and I would like Col. Gilmore, who has the matter of supply in charge, to give his statement on that particular point. He has the information at hand.

Mr. ANTHONY. In connection with the \$33,000,000 we appropriated last year, the pay of officers and the pay of the men, the subsistence, the ordinary quartermaster stores, and some other things of that sort came out of other appropriations.

Gen. **MENOHER.** Yes, sir.

Mr. ANTHONY. So that the \$33,000,000 we gave you last year went entirely for administration, for civilian employees, and the development and production, and the new planes you purchased?

Gen. **MENOHER.** Yes, sir.

Mr. ANTHONY. I would like to have you show us what disposition you propose to make of the \$9,000,000 for pay of employees.

Statement of civilian employees of the Air Service—Estimates for the fiscal year 1922, and indicating character of activity.

	Clerical.	Engineering.	Mechanicians.	Chauffeurs.	Firemen.	Draftsmen.	Information analysts.	Patent experts and attorneys.	Instructors.	Laborers, messengers, guards, watchmen.	Total employees	Total cost.
Department of Columbia, office of the Chief of Service.		16	11			17	3	11			58	\$135,650
Administrative:												
Medical Research Laboratory.	4	10	3							2	19	32,740
Service officer—												
First Corps Area.	1										1	1,500
Second Corps Area.	4										5	6,520
Fourth Corps Area.	1										1	1,400
Sixth Corps Area.	1										2	2,240
Eighth Corps Area.	8									1	9	11,420
Ninth Corps Area.	4									1	5	6,240
Hawaiian Department.	5										5	6,700
Panama Department.	4										4	6,100
Philippine Department.	4										10	12,188
Marine attachés.	3	1	5	1						4	10	19,800

Statement of civilian employees of the Air Service, etc.—Continued.

	Clerical.	Engineering.	Mechanicians.	Chauffeurs.	Firemen.	Draftsmen.	Information analysts.	Patent experts and attorneys.	Instructors.	Laborers, messengers, guards, watchmen.	Total employees.	Total cost.
Schools:												
Mechanics' School, Kelly Field.....	18	1	10		2	2			189	36	258	400,122
Bombardment School, Ellington Field.....	3	1	10							2	16	25,000
Photographic School, Hampton, Va.	4										4	1,000
Field Officers' School, Langley Field.	7	1	10		2					8	28	37,500
Pursuit School, Rockwell Field.....	12	2	16		4					12	46	61,200
Airship School, Scott Field.....			6							1	7	3,000
Balloon School—												
Brooks Field.....	11	5	8			2			1	20	47	67,000
Lee Hall, Va.....	5		6								11	18,000
Omaha, Nebr. ¹	18	28	50			10			1	31	138	24,000
Ross Field.....	8		13			1					22	35,400
Stock Keepers' School, Fairfield, Ohio.....	5								11		16	34,300
Reserve: Boston, New York, Philadelphia, Baltimore, Detroit, Chicago, St. Louis, St. Paul, Denver, Los Angeles, San Francisco, Seattle, Salt Lake City.			236							27	263	394,000
Special training, corps area training centers, special schools, firing centers, etc.....	27		20							8	55	67,000
Flying fields:												
Bolling.....	4	1	31							14	50	7,000
Carlstrom.....	6	1	15		2					12	36	4,000
Crissey.....	2		10							3	15	21,000
Kelly.....	17	1	36							28	89	107,000
Langley.....	15	1	79		11	2				6	114	152,000
March.....	6	1	15		2					14	38	5,000
Mather.....	5	1	2							18	26	34,000
Miller.....	2		10							3	15	21,000
Mitchell.....	39		46			1				86	172	244,000
Post.....	12	2	21		4					12	54	74,000
Engineering plant, McCook Field.....	308	190	540	30	14	122		4		208	1,416	2,612,000
Plant protection.....										35	35	60,000
Procurement and inspection (including engine plant), Akron, Chicago, Long Island City.....	32	1	30	1						47	111	182,000
Aviation general supply depots:												
Americus, Ga.....	11	1	26	2	3					87	130	17,000
Fairfield, Ohio (also repair depot).....	62	1	165	16	2	1			9	388	644	9,000
Little Rock, Ark.....	34		57		1					83	153	21,000
Middletown, Pa.....	35		66	11	1	1				210	324	4,000
Morrison, Va.....	10	2	15		2					24	37	5,000
Richmond, Va.....	16	4	60	9	3					195	293	3,000
San Antonio, Tex. (also repair depot).....	54	3	133	14	1					159	359	46,000
Washington, D. C.....	15		3							13	31	4,000
Repair depots:												
Montgomery, Ala.....	48		194			3				52	327	4,000
Rockwell Field (also supply depot).....	23	3	148	10		2				111	287	3,000
Storage depot, Buffalo, N. Y.....	34		67	11	1	1				114	227	29,000
Temporary storage depots:												
Chanute Field.....	5		8							12	25	3,000
Dorr Field.....	4		10							13	27	3,000
Ellington Field.....	21		25	2	4					22	54	7,000
Love Field.....	2		10							3	15	2,000
Park Field.....	4		2							13	19	2,000
Scott Field.....	2	1	3	4						27	37	5,000
Selfridge Field.....	9		23							14	56	7,000
Air Service Railway (Carlstrom to Dorr).....	1	2	6		1						10	15,000
	995	281	2,265	122	60	165	3	15	211	2,381	8,498	12,498,000

¹ Includes lighter-than-air experimental station.

Col. FULLER. I would like to make a general statement which I think will help the committee understand Col. Gillmore's statement which applies to the supply group. Out of the \$33,000,000 appropriation there is to be expended for civilians, \$8,500,000. The year before that there was expended for civilians a little over \$10,000,000 all to-

The estimate, as you will note, for this year is \$9,600,000, an increase of about \$1,100,000 over the amount which is being expended at the present time. That increase is made up primarily by an increase of \$400,000 for the experimental engineering activities at Dayton, Ohio, \$394,000 for the hire of mechanics to enable the reserve officers, these 5,000 reserve officers, to continue occasional flying during the year so that they may continue to be flying officers.

DISPOSAL OF MATÉRIEL.

Then there is an item carried this year, fiscal year 1922, of \$289,000 for matériel disposal, the payment of civilians for that purpose, not included in the \$8,500,000.

Mr. ANTHONY. That is the disposal of the salvage material left over from the war?

Col. FULLER. Yes.

Mr. ANTHONY. How much of that work is done by the Sales Bureau?

Col. FULLER. Col. Gillmore can tell you that.

PROPOSED EXPENDITURES.

Mr. ANTHONY. Of the \$27,000,000 increase you are asking over what we appropriated last year, is the largest proportion of that going into new production?

Col. FULLER. I have prepared a comparative statement showing the items right straight through.

Mr. ANTHONY. Can you tell us briefly about that?

Col. FULLER. It largely goes into two main things, one is aircraft, its production, operation, and its maintenance, and for the physical plant. By that I do not mean any barracks and quarters, but only machine shops, airdromes, places where aircraft are repaired, and so on, and places where we will put facilities to enable these reserve officers to fly in 13 of the larger cities, where there are great numbers of them. That does not, however, include any item for purchase of land. Those two items account for practically all of the increase.

Mr. ANTHONY. Is it not a fact that in last year's bill we included appropriations covering items for departmental employees in Washington, for the purchase and lease of land, and the construction of buildings, but that this year you are asking that those things be provided for elsewhere?

Col. FULLER. That is so.

Mr. ANTHONY. What did they amount to in last year's bill?

Col. FULLER. For the maintenance and operation of stations the amount was \$3,000,000.

Mr. ANTHONY. That you are asking for in some other bill this year?

Col. FULLER. Yes, sir.

Mr. ANTHONY. Where do you get that this year?

Col. FULLER. The Quartermaster General furnishes that in 1922.

Mr. ANTHONY. That is \$3,000,000?

Col. FULLER. Yes, sir. Then there is \$250,000 for rentals; there is the purchase of Selfridge Field and some other items. We carry

this year an item which we never before carried. The Quartermaster General heretofore has furnished us with fuel and lubricants. We are carrying in this bill this year \$3,500,000 for the purchase of fuel and lubricants.

Mr. ANTHONY. So those items will practically offset the other?

Col. FULLER. Yes, sir.

Mr. ANTHONY. Where are you asking this year for the construction of new buildings for the Air Service?

Col. FULLER. Barracks and quarters?

Mr. ANTHONY. Under the general head of barracks and quarters in this bill?

Col. FULLER. In the sundry civil bill.

Mr. ANTHONY. So there is nothing for barracks and quarters in this bill for the Air Service?

Col. FULLER. There is nothing for barracks and quarters in this Air Service item.

Gen. LORD. There is nothing itemized.

Mr. ANTHONY. It could be taken from that appropriation—that is they could be built from that appropriation?

Gen. LORD. Unless it had already been covered in some special projects.

Mr. SLEMP. Suppose we do not appropriate the \$50,000,000? Will that have any effect on your course here?

Col. FULLER. No, sir; not at all.

Mr. ANTHONY. The gasoline and grease which had heretofore been furnished you by the Quartermaster General's Department will now be provided for under your item?

Col. FULLER. Yes, sir; \$3,500,000.

Col. GILLMORE. Mr. Chairman, I do not know how much you want to go into detail in connection with this matter.

ESTIMATE FOR CIVILIAN PERSONNEL.

(See pp. 243, 253.)

Mr. ANTHONY. We want to get a general idea as to where you propose to expend this \$9,000,000 for civilian employees.

Col. GILLMORE. We maintain nine different supply depots that are scattered throughout the country.

PHYSICAL VALUATION OF PLANTS, ETC.

(See p. 249.)

Mr. Slemp asked how much we had saved from the wreck of the \$1,000,000,000 that the chairman spoke of as having been appropriated for the Air Service. We have, in physical valuation of plants and fields, motors, planes, accessories, instruments of all kinds, machine guns and their mounts, depots, clothing and everything that goes to make up the Air Service, approximately, not \$300,000,000. That is what it cost the Government, and that is what we have invested and are maintaining. Some of those fields have been ordered to be abandoned and will be abandoned before the 30th of June, this year.

METHOD OF MAKING SALES OF SALVAGED MATERIAL.

Mr. SLEMP. Have you a list of the amount of salvage recovered in your department?

Col. GILLMORE. Our salvage—transfer of material—amounted to about \$95,000,000; our recovery has been about 63.2 per cent of the cost value of the material sold.

Mr. ANTHONY. Was that sold through the Sales Bureau or sold direct through your department.

Col. GILLMORE. The method of sale is this: We do all of the actual work of the selling. The Sales Bureau is an office of the Secretary of War supervising all sales of the War Department.

Mr. ANTHONY. Do they draw up the actual contracts?

Col. GILLMORE. The actual contracts for Air Service are drawn up by the Air Service and approved in their office and very frequently changed in form in the Director of Sales Office.

Mr. ANTHONY. So, the principal function of the Sales Office is to pass judgment on what you do?

Col. GILLMORE. It is supervisory. They pass on the price and contracts.

Mr. ANTHONY. Are the officers in the Air Service, in your opinion, competent to pass upon values and the prices obtained for this material, or do you need expert outside civilian advice to tell you whether you are getting swindled or not?

Col. GILLMORE. We were organized, until the demobilization, in fairly good shape to put the thing through and were handling it in fairly good shape. But we have had to discharge employees and most of our officers who were intimately associated with the production during the war have left the service.

Mr. ANTHONY. You know the value of lumber, the value of spruce and pine, do you not?

Col. GILLMORE. Yes, sir.

Mr. ANTHONY. You know what the Government ought to get out of the planes declared surplus?

Col. GILLMORE. Yes, sir.

Mr. ANTHONY. And what the raw materials that go to make up those planes are worth?

Col. GILLMORE. Yes; we make our recommendations: First, these things are declared surplus and a list of the material sent to the Director of Sales. If another department of the Government does not want that article, then it is put on a list to be sold, and our sales force has endeavored to find a place to sell it. Bids are invited or negotiations are entered into, and when the bids or offers are received they are passed on by a board in our own office and then sent to the Director of Sales, who has the final say as to whether we can sell at such and such a price. The same method of procedure was carried on in our auction sales. We held four big auction sales. A representative of the Director of Sales office attended those sales, and at the end of each day's auction an approval was put on as to whether that price should be allowed to go through.

Mr. ANTHONY. Have you much material which is yet to be disposed of in the Air Service?

Col. GILLMORE. We have about \$15,000,000 worth of material that we have been trying to sell.

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Mr. ANTHONY. Have you much material which is yet to be disposed of in the Air Service?

Col. GILLMORE. We have about \$15,000,000 worth of material that we have been trying to sell.

Mr. ANTHONY. What does it consist of?

Col. GILLMORE. Planes and motors, largely, that are obsolete. Take, for instance, the item of 2,200 Hall-Scott motors. We have tried in every way possible to sell those motors, and we can not find a customer except for one motor here or there.

Mr. ANTHONY. Are they suitable for any other use except in airplanes?

Col. GILLMORE. Apparently no one feels that they are suitable for their use. We thought we might get them into marine motors, but we can not find any concern willing to take them at any price.

Mr. SLEMP. Does that \$15,000,000 represent the cost value or an appraised value?

Col. GILLMORE. As near as can be estimated, cost value.

Mr. ANTHONY. So you are comparatively sold down?

Col. GILLMORE. We are comparatively sold down, because the things we have on hand now are the things that have been the hardest to dispose of, with the exception of a few articles that come through occasionally as surplus.

SALE OF FLYING FIELDS.

(See p. 251.)

Mr. ANTHONY. Have you endeavored to dispose of the flying fields that have been declared no longer necessary?

Col. GILLMORE. Yes; we have disposed of a number of fields.

Mr. ANTHONY. Have you many of them remaining to dispose of?

Col. GILLMORE. Yes, sir; there are four fields right now which will be disposed of between now and June 30.

Mr. ANTHONY. Will you put in the record a list of the flying fields now owned by the Government, those that are in actual use, those it is intended to retain, and those which you intend to dispose of?

Col. GILLMORE. Yes, sir.

FLYING FIELDS OWNED BY THE UNITED STATES IN ACTIVE USE.

Souther Field, Americus, Ga.
 Carlstrom Field, Arcadia, Fla.
 Dorr Field, Arcadia, Fla.
 Scott Field, Belleville, Ill.
 Curtiss Elmwood plant, Buffalo, N. Y.
 Mitchel Field, Garden City, Long Island, N. Y.
 Langley Field, Hampton, Va.
 Luke Field, Hawaiian Islands.
 Ellington Field, Houston, Tex.
 Balloon School, Lee Hall, Va.
 Aeronautical engine plant, Long Island City, N. Y.
 Park Field, Millington, Tenn.
 Coast defense station, New Dorp, Staten Island, N. Y.
 Bolling Field, Anacostia, D. C.
 Chanute Field, Rantoul, Ill.

March Field, Riverside, Calif.
 Mather Field, Sacramento, Calif.
 Kelley Field No. 1, San Antonio, Tex.
 Fort Omaha, Omaha, Nebr.
 Post Field, Fort Sill, Okla.
 Rockwell Field, San Diego, Calif.
 Supply depot, Americus, Ga.
 Supply depot, Fairfield, Ohio.
 Supply depot, Little Rock, Ark.
 Supply depot, Middletown, Pa.
 Supply depot, Richmond, Va.
 Aviation repair depot, Montgomery, Ala.
 Crissy Field, San Francisco, Calif.
 Kindley Field, Corregidor, P. I.
 Clark Field, Camp Stotsenburg, P. I.
 France Field, Panama, Canal Zone.

PURCHASE AUTHORIZED BUT NOT COMPLETED, IN ACTIVE USE.

Ross Field, Arcadia, Calif.
 Ellington Field, auxiliary, Houston, Tex.
 Addition to Langley Field, Hampton, Va.

Selfridge Field, Mount Clemens, Mich.
 Brooks Field, San Antonio, Tex.
 Kelly Field No. 2, San Antonio, Tex.

LEASED OR DESIRED TO RETAIN IN ACTIVE USE.

Septic tank, Souther Field, Americus, Ga.	Border patrol station, McAllen, Tex.
Addition to Scott Field, Belleville, Ill.	Park Field, pump-house site, Millington, Tenn.
McCook Field, Dayton, Ohio.	Park Field, R. R. R/W, Millington, Tenn.
Border patrol station, Del Rio, Tex.	Air Service depot, Morrison, Va.
Border patrol station, Douglas, Ariz.	Marine boiler plant, Richmond, Va.
Balloon field, Douglas, Ariz.	Addition to Chanute Field, Rantoul, Ill.
Border patrol station, El Centro, Calif.	Stinson Field, San Antonio, Tex.
Wilbur Wright Field, Fairfield, Ohio.	Border patrol station, Sanderson, Tex.
San Leon Gunnery School, Houston, Tex.	East Field, San Diego, Calif.
Ellington Auxiliary No. 6, Houston, Tex.	Ream Field, San Diego, Calif.
Border patrol station, Laredo, Tex.	State muster grounds, South Framingham, Mass.
Target range for Ross Field, Los Angeles, Calif.	Border patrol station, Nogales, Ariz.
Observation station, Los Angeles, Calif.	Addition to supply depot, Middletown, Pa.

TO BE DISPOSED OF.

Chapman Field (owned by Government), Miami, Fla.	Gerstner Field, Lake Charles, La.
Love Field (septic tank, owned by Government), Dallas, Tex.	Cafeteria site, Long Island City, N. Y.
Barron Field, Fort Worth, Tex.	Unit No. 2 Wilbur Wright Field, Fairfield, Ohio.
Taliaferro Field, Fort Worth, Tex.	Rich Field, Waco, Tex.
Repair depot, Indianapolis, Ind.	Repair depot, Dallas, Tex.

PHYSICAL VALUATION OF PLANTS.

(See p. 246.)

Mr. SLEMP. Your \$300,000,000 is the amount of the assets you have on hand?

Col. GILLMORE. Yes, sir.

Mr. SLEMP. What part of that is land? How much land is there?

Col. GILLMORE. We were authorized to purchase and retain 15 heavier-than-air flying fields, and those now belong to us.

Mr. SLEMP. At what value?

Col. GILLMORE. I think the value of the flying fields and the buildings would run in the neighborhood of \$65,000,000.

Mr. ANTHONY. Those were flying fields which were already in use by the Government and on which the Government had put improvements, and it was deemed more economical for the Government to complete the purchase than to relinquish its contract?

Col. GILLMORE. Yes, sir.

Mr. SLEMP. Of the \$300,000,000 assets we have \$65,000,000 worth of land?

Col. GILLMORE. Land and buildings on those fields.

Mr. SLEMP. Including the buildings also? Is that what it cost?

Col. GILLMORE. Yes, sir. The land represents only about 7 or 8 per cent.

Mr. SLEMP. Where do you get the additional \$235,000,000?

Col. GILLMORE. That is in equipment, the Liberty motor, which cost on an average of \$10,000 each.

Mr. SLEMP. You have 15,000 of those?

Col. GILLMORE. We have in good order now about 12,500.

Mr. SLEMP. What can you make the Liberty motor for?

Col. GILLMORE. At the time of the signing of the armistice, if we could have cut out the overhead developed up to that period and started in new we would have made the Liberty for between \$4,000 and \$4,500.

Mr. SLEMP. And you are carrying them at about \$15,000 for valuation?

Col. GILLMORE. At about \$10,000.

Mr. SLEMP. It would not be fair as a statement of assets to carry them on that basis, would it?

Col. GILLMORE. In figuring an asset which we have we must take some cost, and the only cost is what we had to pay for it.

Mr. Sisson. In getting an asset, an inventory of a man's business—you must base that on what the stuff is worth now?

Mr. SLEMP. You carry those 12,500 Liberty motors at \$10,000 each?

Col. GILLMORE. Yes; at \$10,000 each.

Mr. SLEMP. That is \$125,000,000?

Col. GILLMORE. Yes, sir.

Mr. SLEMP. As I say, you have that much out of your wreck. That accounts for \$190,000,000, which represents an inflated valuation. I should say, of at least \$100,000,000.

Col. GILLMORE. But you asked the question, What have you saved from the wreck of the billion dollars? The billion dollars you took is represented in part by what the Liberty motor cost, \$10,000, and not by what it is worth now.

Mr. ANTHONY. In other words, your figures are on the basis of war cost?

Col. GILLMORE. Yes.

Mr. SLEMP. You said that out of the wreck we have saved about 12,500 Liberty motors?

Col. GILLMORE. Yes, sir; that is just one item.

Mr. SLEMP. Then you said the amount saved was \$300,000,000, and I was trying to find out what that \$300,000,000 is composed of. We have gotten two items of the \$300,000,000—one of land, amounting to \$65,000,000; and the other concerning Liberty motors, amounting to \$125,000,000. That is a total of \$190,000,000.

Col. GILLMORE. Yes, sir.

Mr. SLEMP. You would not contend, would you, that the articles represented in the \$190,000,000 are worth \$300,000,000, or even two-thirds of \$300,000,000?

Col. GILLMORE. If you had to start in now and manufacture Liberty motors, you would probably pay, when you got to the production of the next 12,000, \$10,000 each.

Mr. SLEMP. I thought you said about \$4,000.

Col. GILLMORE. I said if they had started at the signing of the armistice the cost would probably have been between \$4,000 and \$4,500. But we have wiped out these factories—the Lincoln Motor Co., the Ford, and the others. The Lincoln Motor Co. has been turned into an automobile factory; that part of the Ford factory, which was building Liberty motors has been put on other work; and the Nordyke & Marmon concern have gone back to the manufacture of automobiles, and it is not equipped to make Liberty motors. All those jigs, tools, and dies have gone.

Mr. SLEMP. But have you not got a full set of jigs and dies?

Col. GILLMORE. One set.

Mr. SLEMP. Where are they located?

Col. GILLMORE. In the Long Island City motor plant.

Mr. SLEMP. Is that a Government institution?

Col. GILLMORE. Yes, sir.

Mr. SLEMP. What is your other \$110,000,000 composed of?

Col. GILLMORE. We have 8,000 OX-5 motors.

Mr. SLEMP. Are they obsolete?

Col. GILLMORE. No, sir.

Gen. MENOHER. They are obsolescent.

Mr. SLEMP. At what valuation would you carry them in your \$300,000,000?

Col. GILLMORE. About \$2,000.

Mr. SLEMP. That is another \$16,000,000.

Col. GILLMORE. Then we have those 2,200 Hall-Scott motors that cost \$1,500 each.

Mr. SLEMP. That is another \$8,000,000.

Col. GILLMORE. We also have 3,200 Hispano-Suiza 150 and 180 horsepower type engines.

Mr. SLEMP. Are the 2,200 Hall-Scott motors obsolescent?

Col. GILLMORE. No, sir; they are obsolete.

Mr. SLEMP. What did they cost?

Col. GILLMORE. They cost \$1,500. Then we have 1,250 rotary—the Gnome motor.

SALE OF FLYING FIELDS.

(See p. 248.)

Mr. SLEMP. What has been your experience in connection with the salvage value of the camps?

Col. GILLMORE. The salvage so far—of the \$95,000,000—the recovery to the Government has been 63 per cent of the cost to the Government.

Mr. SLEMP. Exclusive of material?

Col. GILLMORE. I do not know what you mean by that.

Mr. SLEMP. Give me an illustration of a piece of land and the buildings on the land.

Col. GILLMORE. This has not been land and buildings; it has been everything, included in the \$95,000,000. There have been all kinds of material, from raw steel up to and including fields and buildings.

Mr. ANTHONY. In answer to Mr. Slemph's specific question as to what you got for the salvage value of these lands and buildings, they ran to about 10 per cent, did they not?

Col. GILLMORE. Yes, sir; although in some cases it was not 10 per cent.

Mr. SLEMP. So in the \$100,000,000 there was \$65,000,000 which represented the value of the land and buildings. Would that be worth \$6,500,000?

Col. GILLMORE. For our use it is worth a great deal more than that. If you had to sell it, it would not be worth any more than that.

Mr. SLEMP. How many of these do you propose selling?

Col. GILLMORE. We have to sell now Rich Field, at Waco, Tex.; Barron Field, in Texas; Love Field, in Texas; and Gerstner Field, in

Louisiana. Those four are the remaining fields that we are not authorized to retain.

Mr. SLEMP. Four out of fifteen?

Col. GILLMORE. No, sir; we had 22 fields. We have disposed of Hazelhurst Field. That brought about 10 per cent of its cost.

Mr. SLEMP. I am just taking up the \$65,000,000, which is carried here as the valuation, and I am trying to find out whether we really have got \$300,000,000 of assets. That is what I want to know.

Gen. MENOHER. It could not be considered as that; it is only a percentage of that.

Mr. SLEMP. What have you gotten out of the wreck?

Gen. MENOHER. Col. Gillmore makes the point that we still have fields, buildings, motors, planes, etc., that cost the Government \$300,000,000.

Mr. SLEMP. I understand that; that does not mean anything. We may have made a bad contract and paid too much. We are carrying these things which you say represent a cost value of \$300,000,000. What is that worth? What did we save out of the wreck?

Col. GILLMORE. That would have to be reduced. We did not, as a rule, own the fields; they were under lease; and we were authorized to purchase a certain number of those. The facilities that have been placed on those fields cost, as a rule, about \$2,000,000 for each field. The salvage value of those that we have disposed of was only 10 per cent of the cost of the buildings and utilities, including sewerage plants, water systems, roads, grading, etc. But of the fields retained, or that we were authorized to purchase by the appropriation a year ago, the cost of the real estate to the Government, when we have actually purchased those, was only about 6 per cent of the value of the buildings already placed on them by the Government.

Mr. SLEMP. I wish you would tell us—

Col. GILLMORE (interposing). I think I see what you want to get at. You want to find out what we consider the \$300,000,000 worth of property that I said is now saved is worth at present.

Mr. SLEMP. I want to know what is the value of our investment in the Air Service plant.

Mr. Sisson. Can you not put in the record a list of the property that was purchased, its cost, and what you think it is worth now?

Col. GILLMORE. I could put it in the record, but you could not put it on that table if you stacked it as high as the ceiling.

Mr. Sisson. I do not mean that; but you started with a certain number of Liberty motors, of which you now have a certain percentage on hand. I do not mean to have you put down everything you purchased. But you said you have materials of \$300,000,000 cost value now on hand. Can you not put that down?

Col. GILLMORE. Yes, sir; just put it in large items.

Mr. Sisson. Then alongside of each item you can put down the estimated value. In one column you can put down the \$300,000,000 representing the cost value, and in another column you can put down the present value. For instance, there was a certain number of planes and engines and fields which cost so much money, and they are not worth that much at the present time.

Col. GILLMORE. Yes, sir.

Mr. ANTHONY. You have estimated the value of the property remaining at \$300,000,000. That was the war cost. Now, you could

put alongside of that your estimate of the present value. That would cover it.

Col. GILLMORE. Yes, sir. We will insert it in answer to the question asked Gen. Menoher earlier in the day.

ESTIMATE FOR CIVILIAN PERSONNEL.

(See pp. 243, 246.)

Mr. ANTHONY. Can you tell us how you propose to spend the \$9,000,000 for civilian employees.

Col. GILLMORE. We have nine aviation supply depots within the territorial limits of the United States that handle our supplies here and for our foreign possessions.

AVIATION SUPPLY DEPOTS.

Mr. ANTHONY. Will you put in the record the names of those depots?

Col. GILLMORE. Yes, sir. Aviation supply depots at Middletown, Pa.; Richmond, Va.; Americus, Ga.; Little Rock, Ark.; Rockwell Field, San Diego, Calif.; Fairfield, Ohio; Buffalo, N. Y.; San Antonio, Tex.; and Morrison, Va.

Mr. ANTHONY. Are nine of them necessary?

Col. GILLMORE. I think, Mr. Anthony, that nine of them are not necessary to be retained permanently. I think nine of them are necessary to retain until we can get rid of the equipment that we are trying to sell, and until we know exactly what Congress is going to do with the Air Service.

Mr. ANTHONY. How large a force of men are you carrying around the supply depots?

Col. GILLMORE. The number of employees at the supply depots varies at each supply depot. At Buffalo, N. Y., 228; at the supply depot at Fairfield, Ohio, 660.

Mr. ANTHONY. Six hundred and sixty civilian employees at the supply depot at Fairfield, Ohio?

Col. FULLER. Yes, sir; 313 are laborers, and the average rate of pay for the laborers is \$1,171 a year. This is merely a figure which indicates the average.

Mr. ANTHONY. Why do you need that many laborers around that supply depot?

Col. GILLMORE. We are using at Fairfield now all the buildings in unit No. 1 of the Wilbur Wright Field for the storage of airplanes, motors, and other accessories. A great deal of our foreign equipment has been concentrated there—that is, a great deal of the material that came to us at the time of the signing of the armistice.

Mr. ANTHONY. Why can you not use enlisted men for the purpose of issuance and shipment and taking care of the supplies?

Col. GILLMORE. We could use enlisted men if they were available. Unfortunately, our service only has about one-half of its quota now. To keep up any sort of tactical organization they must have enlisted men; they can not use civilians in tactical organizations.

Col. FULLER. The laborer is cheaper.

Mr. ANTHONY. You figure the expense of the enlisted man to the Government at about \$2,000 a year?

Col. GILLMORE. I think the average pay of the laborers is about \$1,200 a year. If you count in there the overhead cost of the enlisted man, I think you will find that the laborer is about as cheap as the enlisted man.

Mr. Sisson. You pay the laborer and the enlisted man, too. I can not see any economy in that.

Col. GILLMORE. If we had enlisted men there, we would have to have laborers.

Gen. MENOHER. We can not carry on military work unless we have enlisted men.

Mr. SLEMP. Did these enlisted men leave the service and come back into the employ of the Government as laborers or civilian employees?

Gen. MENOHER. A great many of them did.

Col. FULLER. Most of the ones who come back are mechanics, for whom the average rate of pay is \$1,734 a year.

Mr. SLEMP. It seems to me you are training these men to get good jobs with you along other lines.

Col. GILLMORE. They do.

Col. FULLER. Not only that, but this is the one training that there will be in the Nation which will enable us to have experts when war comes in order to enter into rapid production of aircraft. That was our greatest difficulty during the war.

Mr. ANTHONY. Are there any other depots where you employ these civilians?

REPAIR DEPOTS.

Col. FULLER. Yes; we have our four repair depots.

Mr. ANTHONY. Where are they?

Col. GILLMORE. There is one at Rockwell Field in California, where we take care of repairs on the west coast, major repairs for Honolulu and the Philippines. Anything that is worth major repair can be shipped back on a Government transport and we repair it there.

Mr. ANTHONY. How many are at Rockwell Field?

Col. FULLER. There are 343, of whom 102 are laborers.

Col. GILLMORE. Then we have a repair depot at Dallas, Tex., where a lot of Air Service activity is carried on in connection with border patrol work, at Kelly Field and Ellington Field. We have a third depot at Montgomery, Ala.

Mr. ANTHONY. That supplies the Southeast?

Col. GILLMORE. That supplies the Southeast.

Mr. ANTHONY. How many men are there there?

Col. FULLER. There are 327. That is a repair depot.

Col. GILLMORE. The depot at Montgomery, Ala., is a repair depot. Then we have the repair depot at Fairfield, Ohio. In that number that Col. Fuller included is the repair depot, that is the depot we moved from Speedway, at Indianapolis. We have abandoned the Speedway depot and moved into the temporary buildings at Fairfield, putting the repair depot alongside the supply depot.

Mr. ANTHONY. You make your minor repairs at the fields themselves?

Col. GILLMORE. Yes, sir.

Mr. ANTHONY. Is there any necessity for maintaining all of these repair shops?

Col. GILLMORE. Yes, sir; there is. The minor repairs are made by men who can handle minor repairs, and who are not at all themselves competent to take a plane down or to take a motor down and make a real major repair on it. They are not skilled mechanics.

Mr. ANTHONY. What does it cost for the repairs made at these central plants, in proportion to the cost of the plane itself, when you ship one in to be overhauled?

Col. GILLMORE. It has not been our policy, if a plane is wrecked so that it would involve over 50 per cent of the cost of the plane to repair it, to make those repairs. We just survey it and drop it.

Mr. ANTHONY. Have you ever figured the value of the repairs you make at these four central plants as compared with the cost of the maintenance of the repair plants?

Col. GILLMORE. Yes, sir. We keep cost records sufficient to show that.

Mr. ANTHONY. Do you find it is a good business proposition?

Col. GILLMORE. We do find it is a good business proposition, and by not having to charge an overhead, as the manufacturer has to charge taxes, insurance, the cost of his selling organization and advertising against his gross income, we find we can do the work considerably cheaper than a manufacturer can do it.

Mr. ANTHONY. Can you put in the record a statement of the operations of these four individual plants for the past year, showing the amount of work they have turned out and what it has cost the Government to do it?

Col. GILLMORE. Yes, sir. I will put in the record a statement of the costs at the repair depots at Dallas, Montgomery, and Speedway, Ind., for the fiscal year 1920. The repair depot at Rockwell Field is just starting operations now.

STATEMENT SHOWING AVERAGE COST OF REPAIR OF AIRPLANES AND ENGINES AT REPAIR DEPOTS DURING THE PERIOD OF JULY 1, 1919, TO JUNE 30, 1920.

The following is based on the actual number of engines and planes overhauled and repaired in the Dallas, Montgomery, and Indianapolis repair depots.

The total expenditure for civilian hire covering this period was secured from the finance contracts section, while the average number of enlisted men carried by the three depots during this period was secured from the personnel division.

Total expenditure for civilian hire.....	\$1, 005, 715
Average number of enlisted men employed for the above period, 487; assuming 2,000 hours per man per year at \$0.55 per hour or \$1,100 per man per year, the total cost of enlisted personnel will be.....	535, 700

Total cost for civilian and enlisted labor.....	1, 541, 415
Total of airplanes repaired during the above period.....	357
Total number of engines repaired during the above period.....	1, 450

Assuming that twice the number of man hours are consumed in the repair of an airplane as compared to an engine, the unit cost of airplanes and engines under the above conditions will be as follows:

Unit cost of repairing airplanes (all types) at Indianapolis, Mont- gomery, and Dallas.....	\$1, 424. 59
Plus 25 per cent for cost of material.....	356. 15
Total.....	1, 780. 74
Unit cost of repairing engines as above.....	712. 29
Plus 25 per cent for cost of material.....	178. 07
Total.....	890. 36

It will be noted that the total labor of the three depots during the fiscal year 1920 is charged against the repair of engines and airplanes.

This covers all overhead with the exception of certain items of administration, interest on investments, and depreciation of equipment for which there is no available data.

Mr. ANTHONY. What is the next item of civilian expenditure?

Col. GILLMORE. We have at our inactive fields, which are inactive because of not having tactical troops organized to put into these fields, at present a civilian overhead—we have civilian employees at Park Field, near Memphis, Tenn., at Chanute Field and Scott Field in Illinois, at Dorr Field in Florida—those four fields are at present not being used, but they are all in the plan to be used in the next fiscal year.

For instance, Scott Field is to be turned over to the Balloon and Airship Division. Chanute Field is going to be the mechanical training school. Park Field will be a training center for reserve flying of that section of the country.

ENGINEERING DIVISION, M'COOK FIELD, DAYTON, OHIO.

(See p. 258.)

Mr. ANTHONY. Now, you said that you spent some two million and some hundred thousand dollars for civilian employment at Dayton. That is where you carry on your engineering experiments. Do you do any manufacturing there?

Col. GILLMORE. I would like to have Col. Bane go into the proposition. He knows all about it. He is in command there and is present and can give you all the information.

Mr. ANTHONY. Just generally, do you go into production there?

Col. GILLMORE. No production at Dayton. They have made only about 10 models this year.

Mr. ANTHONY. How many civilian employees are there?

Col. GILLMORE. About 1,200 for the Air Service experimental laboratory. They work on all kinds of accessories and everything that goes with the air game.

Mr. ANTHONY. Are there any other places where they employ civilian employees as extensively?

Col. GILLMORE. Not in the group that I am at the head of.

Mr. ANTHONY. And all departmental employees other than those who are serving in Washington are provided for elsewhere?

Gen. LORD. They are provided for in this bill, but the authorization is carried in the legislative bill.

Gen. MENOHER. That provision is made for employees in Washington, and not for the whole amount.

Mr. ANTHONY. Do you think it is going to be necessary year after year to maintain civilian forces this much greater in proportion than in any other branch of the Army?

Col. GILLMORE. I think it will be from the nature of the work. I do not think we can ever get away from using first-rate mechanics for this kind of work.

Mr. ANTHONY. You are training your soldiers in mechanics?

Col. GILLMORE. Yes, sir.

Mr. ANTHONY. Are you meeting with any success in that line?

Col. GILLMORE. Our success is limited by the fact that we do not get recruits to train, owing to the fact that a lot of the recruits are only one-year enlistment men. You can not take a boy off the farm who has no mechanical training or has never served as an apprentice. He would like to be a mechanic——

RECRUITING.

Mr. ANTHONY. Is not the air branch of the service a favorite with recruits?

Col. GILLMORE. I think we are favored in the selection by the individual himself.

Mr. ANTHONY. But you are recruited up to your pro rata of the War Department?

Gen. MENOHER. No, sir; I will state that out of 16,000 men we have only 8,813. That matter of pro rata has been closed by the War Department. We are getting recruits now at the rate of 200 a week.

Mr. ANTHONY. I have been given to understand that the other technical branches of the service have been recruited up practically full, such as Motor Transport, Quartermaster, and Signal Corps. But you say your service has not been.

Gen. MENOHER. No, sir; those are the actual numbers, 8,813.

Maj. LINCOLN. The list now is 8,963.

Gen. MENOHER. Mr. Anthony, in regard to the proportion of civilian employees in other branches, I submitted a statement to the other committee that the proportion of the total estimate that we expended for civilian employees is very much less than any other branch of the technical service, Engineers, Ordnance, or Signal Corps.

Mr. ANTHONY. The Ordnance goes into extensive production of materials for the Army. They are largely concerned in manufacturing.

Gen. MENOHER. I am speaking of the total amount expended for civilians.

Col. FULLER. Those figures are interesting, and for a comparison we took the prewar figures for the fiscal year 1915 and 1916. We wanted those for our own information and guidance. We find that our estimate for 1922 compares very favorably with the proportionate amount of the total appropriations spent for civilians in the Engineer, Ordnance, and Signal Corps, those being the services comparable to the Air Service. As a matter of fact, we are spending a little more than half.

Mr. ANTHONY. I will confess, gentlemen, that the thing that amazes me in connection with the Air Service appropriation is the fact that so large a proportion of the money that we appropriate goes into the pay of civilian employees and for overhead and administrative expenses, and so little of it into the production of planes, and the things that are absolutely necessary to build up an air service.

Col. FULLER. The Air Service is like the arsenals and the navy yard as to necessity for employing civilians for mechanical work.

Mr. Sisson. Will you put into the record what it costs at each of these points that you have just enumerated for civil employees for caring for these various jobs? Just put in the record the location,

the number of employees, and the cost of maintaining the employees in each of these places.

Col. GILLMORE. Yes, sir; and I might also add the function of each particular branch.

Mr. Sisson. I would be glad if you would.

Col. FULLER. The chairman has already asked for that same data. It will appear at an earlier point in these hearings.

SATURDAY, DECEMBER 18, 1920.

CIVILIAN EMPLOYEES—ANALYSIS OF ESTIMATES.

Mr. ANTHONY. In reference to the items for civilian employees can you tell us or put a statement in the record showing how much of the \$9,460,000 is for laborers and mechanics, how much for clerks how much for the higher grade technical employees, and what are the average salaries paid to the last two classes?

Col. FULLER. An analysis of the item of \$9,600,000 for the employment of civilians shows the following: Mechanics, 2,254, 35 per cent of the whole; average pay, \$1,734; clerical, 995, 15.5 per cent of the whole, average pay, \$1,398; motor mechanics and chauffeurs 122, 2 per cent of the whole, average pay \$1,280; draftsmen, 148, 2.1 per cent of the whole, average pay, \$1,695.27; laborers, 2,381, 37 per cent of the whole, average pay, \$1,173; instructors, mechanical trades 211, 3.3 per cent of the whole, average, \$1,670; engineers, 265, 4.1 per cent of the whole, average pay, \$2,948; average pay for all \$1,471. The last item for engineers includes the higher grade of engineers in various engineering lines. The item for mechanics includes operatives.

Gen. MENOHER. Mr. Chairman, Maj. Bane has the item for \$2,612,000 for McCook Field.

ENGINEERING DIVISION, MCCOOK FIELD, DAYTON, OHIO.

(See p. 256.)

STATEMENT OF MAJ. T. H. BANE, IN CHARGE EXPERIMENTAL
ENGINEERING DIVISION, MCCOOK FIELD, DAYTON, OHIO.

ACTIVITIES OF THE STATION.

Mr. ANTHONY. Major, I believe you are in charge of the experimental engineering development station at McCook Field?

Maj. BANE. Yes, sir.

Mr. ANTHONY. We will be glad to have you tell us about the operations of your part of the work.

Maj. BANE. We are asking here, Mr. Chairman, for a total of \$11,259,000 for engineering, and in that there is an item of \$9,748,000 for the heavier-than-air work which is contemplated at McCook Field.

Mr. ANTHONY. How much did you ask for last year?

Maj. BANE. Just about the same—a little more than that; about \$10,000,000, I believe.

Mr. ANTHONY. How much did you get?

Maj. BANE. We got \$5,000,000.

Mr. ANTHONY. You were able to get along with that \$5,000,000?

Maj. BANE. Yes, sir; we were able to operate, but we were not able to do a lot of things that we should liked to have done. But we feel that we have made an advance.

Mr. ANTHONY. You are asking for practically double the amount of the appropriation last year?

Maj. BANE. Double what we got last year.

Mr. ANTHONY. Do you feel that you have accomplished a great deal with the \$5,000,000?

Maj. BANE. Yes, sir; I think we did. I am sure we did. Now we are equipped with all the types of airplanes which are the equal if not better than any that any foreign country may put against us.

Mr. ANTHONY. What more could you accomplish with an appropriation of double that amount?

Maj. BANE. For example, recently we opened bids, on November 15, and we got 35 bids from 15 designers and engineers, but we can only let 5 contracts, because we have not the money to do any more than that. With the amount of money we have we can not keep all the engineering talent busy on the development of airplanes.

Mr. ANTHONY. Do you think it is possible to keep all the engineering talent in the country busy on that work, or advisable?

Maj. BANE. Yes, sir; I do think it is.

Mr. ANTHONY. Do you not think if you did keep them all busy at that work the cost of that would pretty nearly bankrupt the United States Treasury?

Maj. BANE. \$10,000,000 would pay for that, and \$10,000,000 certainly would not bankrupt the United States Treasury. We can not do it with \$5,000,000, and there is no use in going into the air with inferior types of airplanes. If you are going to get anywhere you have got to have the best type; you have got to have a better type than your enemy has or you might as well stay out of the air, or you will be shot out of the air.

Mr. ANTHONY. During the past year, with the \$5,000,000 which you got, have you not been able to experiment with practically every new design furnished you?

Maj. BANE. No, sir; we have not.

Mr. ANTHONY. I do not mean to say that you have taken up every new idea that has been presented to you, but I mean every one which has possessed salient features of airplane development?

Maj. BANE. No, sir. We have many types we have not been able to touch, due to lack of funds.

Mr. ANTHONY. Have you gotten any important types?

Maj. BANE. Yes, sir; some very important types.

Mr. ANTHONY. Which you did take up?

Maj. BANE. Yes, sir; we adopted four types and we have concentrated on those four. But there are others that should be developed. Long-distance surveillance has not been touched.

Mr. ANTHONY. I went through the record of the year before and it seemed that you had gone through with 30 or 40 different types.

Maj. BANE. We have but a total of 15 types.

Mr. ANTHONY. As a matter of fact, when you finally determine what you are going to use you will concentrate on a few types?

Maj. BANE. Yes, sir; but now, during the experimental stage we must develop the other types. We have an attack airplane which attacks the elements on the ground. Then we will have machines with larger guns in them, so that if the enemy makes an attack with armored machines we must have single-seater planes with guns which can penetrate that armor. We have that kind of a machine designed.

This money which is asked for engineering purposes, a total of \$9,742,000, is divided as indicated in the estimates. We feel about the matter that we should go ahead and utilize the talent that exists in the country and keep those people developing new types of airplanes to meet the needs of this country in case of war, and we can not do that unless we have more money than we have had.

NUMBER OF NEW DESIGNS PURCHASED.

Mr. CRAMTON. Is there no possibility of getting those designs from the engineers of the country without supplying them all with contracts?

Maj. BANE. Yes, sir. I mentioned 35 designs that we have received, and out of those designs we paid for 3 of the best designs of each class, making a total of 15 designs that we purchased. We paid from \$2,500 to \$4,000 for each of those designs. But we did not have the money to purchase the other designs, and we would like to let contracts for the building of these types.

Mr. ANTHONY. To what amount did you let contracts for airplanes? Does that come under your jurisdiction?

Maj. BANE. Yes, sir; all experimental contracts.

Mr. ANTHONY. I mean the actual contracts for service planes. Are they let under your supervision?

Mr. BANE. Yes, sir.

NUMBER OF SERVICE PLANES ORDERED.

Mr. ANTHONY. How much money did you spend for the purchase of new planes out of the present year's funds?

Maj. BANE. Experimentally, we spent about \$1,200,000 for experimental types.

Mr. ANTHONY. I refer to the appropriation which I believe specified that \$6,000,000 shall be expended for new production?

Maj. BANE. Yes, sir.

Mr. ANTHONY. That means production other than experimental production?

Maj. BANE. Yes, sir.

Mr. ANTHONY. How much of that has been expended for new production of service planes?

Maj. BANE. We have not actually let contracts; we have been ordered to purchase 250 Thomas Morse machines, 16 Martin bombers, 400 of the H Type of the 300-horsepower Hispano-Suiza engines necessary for the 250 Thomas Morse airplanes.

Mr. ANTHONY. That was the program Gen. Menoher gave us yesterday.

Maj. BANE. Yes, sir.

Mr. ANTHONY. You have not acquired those planes yet?

Maj. BANE. No, sir; the machinery is working now.

Mr. ANTHONY. The entire \$6,000,000 has been taken up in contracts which have just been let?

Maj. BANE. They have not all been let; they are all going to be let.

Gen. MENOHER. That is what Gen. Mitchell went to McCook Field for, to determine upon the types that should be produced.

Mr. ANTHONY. That money will all be obligated to pay for those contracts?

Maj. BANE. That will all be contracted for before June 30.

Mr. ANTHONY. So there is no danger of any of that lapsing?

Maj. BANE. None whatever.

Mr. ANTHONY. Now, you may proceed and tell us about the estimates for the engineering department.

Maj. BANE. I would like to say that the fact that we were able to get from the engineers in the country such a large response to our requests for bids indicates a very healthy situation and shows that there are engineers in this country who can design a creditable airplane. We are very anxious to have more than we are able to get with our present appropriation. But two or three of the contracts have been let for those types and others are now being drawn.

COMMERCIAL AVIATION.

Mr. CRAMTON. To what extent is the industry developing in this country as a commercial proposition, independent of orders for war machines?

Maj. BANE. There is practically no such development. The Curtiss Co. has a production program. They are making Orioles and Eagles, but they have abandoned the whole idea of selling airplanes commercially. There seems to be no market at the present time, due almost entirely to the lack of flying fields. There must be a development of flying fields in all our principal cities before there will be any commercial aviation.

Mr. CRAMTON. Is it not due to the fact that the airplane has not yet been demonstrated to be of practical value from a commercial standpoint?

Maj. BANE. No; that has been absolutely proven. There are 12 companies operating out of London carrying passengers. I have just returned from California, where I have observed the forest patrol work, and there is an indication that the airplane can be operated successfully over the most rugged country in the United States; and they have been operated with only one fatal accident. They have done some wonderful work along that line. The difficulty here is that the contractors in this country are not willing to go into this commercial project until you can assure them that they are going to make substantial returns within six months or a year. But if they are going into this thing in the way in which it should be gone into to put it on a substantial basis it would take from three to five years.

Mr. CRAMTON. Are there any regular passenger routes established in Europe other than the Paris-London route?

Maj. BANE. Yes, sir; there is the Paris-Brussels-Amsterdam route, and the French are flying from Paris to their African possessions regularly.

Mr. CRAMTON. In this country, you think if the different cities had suitable landing fields commercial development would result?

Maj. BANE. Provided you could get enough capital to start it. Something would have to be done to get the money to get it started. The American business man will not go into anything until it has been demonstrated that it is going to be a success, and it has not been demonstrated in their minds in this country yet. Somebody will have to actually fly from Washington to New York regularly and carry passengers before the American business man will become interested. But the people who know the flying game are not willing to say to the American business man that he can go into this thing and make money in six months.

Mr. ANTHONY. Are you asking for anything for municipal flying fields?

Maj. BANE. Not in my section.

Col. FULLER. There is an item in the bill for providing facilities—hangars, shops, etc.—on such fields. Our theory is that these fields can be secured from the municipalities, and even from corporations and individual citizens; and I would like to make this one point: What we are asking for for this purpose is an absolutely indispensable thing for the training of our Reserves and for the National Guard. The Reserves we have now. It is not looking into the future; it is to meet an immediate and pressing necessity.

ESTABLISHMENT OF FLYING FACILITIES ON MUNICIPAL FIELDS.

Mr. ANTHONY. You are asking for money to build flying facilities on these municipal fields that are provided by the different cities of the country?

Col. FULLER. Yes, sir.

Mr. ANTHONY. How much are you asking for that purpose?

Col. FULLER. \$1,000,000, and we would provide facilities only at 13 points where there are large numbers of flying officers now who have had no opportunity to fly, men who have served during the war and who have had no opportunity to fly during the last couple of years.

Mr. ANTHONY. They would serve both commercial and military purposes?

Gen. MENOHER. Yes; and also civil purposes, as in the case of the post office.

Col. FULLER. Except in the congested places, each one of the dots on this map [indicating map] represents a qualified pilot. In the congested points there were too many of them to put them down, but this will show the general distribution of the flying personnel. It is only at Boston, New York, Philadelphia, Baltimore, Kansas City, Detroit, St. Louis, Chicago, Minneapolis, Salt Lake City, Los Angeles, San Francisco, and Seattle that we are asking for that.

Mr. CRAMTON. Have all these cities you mentioned municipal or private flying fields established now?

Col. FULLER. Some of them have actually provided for the land. But we have in this respect a very difficult situation. We have had hundreds, and I might say thousands, of inquiries in one for or an-

other asking us to do something so that these reserve officers may continue their flying, but we have been in the position where we could not make a definite promise that we would do anything; but in some places negotiations are partially under way, and in many instances awaiting for consummation, for us to be able to say as a result of getting an appropriation that the Government will do a definite thing. With definite encouragement from Congress in the way of this appropriation we can do much toward meeting this most important step in providing for the national defense.

Mr. CRAMTON. How many cities have established either a municipal or privately owned flying field?

Maj. HICKAM. Very few have established real flying fields. There are some 2,000 fields in the country that have been used, and we have information which leads us to believe that if we expend a little money they can be put in first-class condition. The land is available.

Mr. CRAMTON. All these cities where it has been attempted to give them postal service by air have established landing fields?

Col. FULLER. Yes, sir. There are quite a number of commercial fields in the country that are operating now with fairly decent facilities.

In reference to this matter of supplying of landing fields and these necessary facilities we are planning for one system that will meet the requirements of the National Guard and the Organized Reserve and the Regular Army and the other requirements of the Government, and also for the purpose of encouraging commercial aviation so far as it can be done without the expenditure of money.

Mr. CRAMTON. Is not the real future of the art in this country dependent upon commercial development?

Maj. BANE. Yes, sir; I think so. It is coming, but we must fall in and help.

Mr. CRAMTON. If you can secure this commercial development, your progress will be much more rapid than can be secured through appropriations.

Maj. BANE. Much more. Of course, experimental work is very expensive, and it will be some time before commercial development can be undertaken by the civilian concerns, except——

Mr. CRAMTON (interposing). I understand your experimental work must be along a different line than the commercial work.

Maj. BANE. But a great part of it will be applied to the work for the commercial airplane. For example, during the last year we have developed the USA 27 with an improved wing section, which has the same efficiency and less drag than the old RAF 5.

In connection with the money that is being asked for this experimental work, I want to call your attention to the fact that it is not only necessary to develop airplanes but all the accessories that go along with the machine. We feel that it is absolutely necessary for us to continue the development of that equipment, because if we get into another war with any first-class power, unless we do keep on with this development, it would not be long before we would be outclassed. We have to make improvements along all these lines. I feel that we have at Dayton the biggest and best equipped aeronautical laboratory in the world.

Mr. CRAMTON. How long would it take you to get into production?

Maj. BANE. We have recently received a letter from the Fisher Body Corporation, in which they say that they will turn over their entire facilities to us and guarantee to be in production with a capacity of 200 planes a day within six months—that is, with the De Haviland type of plane, which they made for us during the war. No other country in the world has any such facilities as that.

Mr. CRAMTON. That is an alluring promise, is it not?

Maj. BANE. They have the plant and the facilities. They know they can do that now, with the mistakes and the expensive experience they gained during the war.

EXPIRATION OF LEASE OF M'COOK FIELD, DAYTON, OHIO.

Mr. ANTHONY. We lease McCook Field, do we not?

Maj. BANE. Yes, sir; we are on a temporary site.

Mr. ANTHONY. From whom do we lease it?

Maj. BANE. The city of Dayton owns some of it and the General Motors Co. owns about two-thirds of it.

Mr. ANTHONY. What are we paying for it?

Maj. BANE. We are paying \$18,000 a year.

Mr. ANTHONY. That is the same price we paid during the war for that property?

Maj. BANE. Exactly. If we release it we are going to have to pay a higher price.

Mr. ANTHONY. Did that property change hands?

Maj. BANE. It was sold to the General Motors Co. when the amalgamation took place of the General Motors Co. with the Dayton-Wright Airplane Co., the Delco Co., and the Dayton Metal Products Co. They amalgamated with the General Motors Corporation last winter.

Mr. ANTHONY. We own all of the improvements on the ground, do we not?

Maj. BANE. Yes, sir; all the temporary improvements.

Mr. ANTHONY. All of the structures and everything in the structures?

Maj. BANE. Yes, sir.

Mr. ANTHONY. Have you received any notice from the owners of the ground that they want the property?

Maj. BANE. Yes, sir.

Mr. ANTHONY. When did they say they wanted it?

Maj. BANE. Our lease expires in July and they say they will be willing to release the property for one year, but at the end of that time they want to put a big motor plant on it.

Mr. ANTHONY. What has become of the Dayton-Wright plant?

Maj. BANE. That has been taken over by the research engineering department of the General Motors Corporation under Mr. Kettering, who is in charge of the research laboratories there.

Mr. ANTHONY. That plant is being fully occupied?

Maj. BANE. Yes, sir; it is.

Mr. ANTHONY. Do we own any other ground around Dayton?

Maj. BANE. We own the site on which the storage depot is located: some 40 acres at Wilbur Wright Field.

Mr. ANTHONY. We do not own the Wilbur Wright Field?

Maj. BANE. We do not.

Mr. ANTHONY. Is that still under lease?

Maj. BANE. It is under lease, and we are asking in another bill to purchase 300 acres, to take in the buildings where the repaid depot, one unit, is located, and give up about 1,900 acres there.

Mr. ANTHONY. You want to retain the flying field there?

Maj. BANE. We want to retain a small test field for flying ships after they have been repaired.

Mr. ANTHONY. What are you going to do if you are forced off of McCook Field?

Maj. BANE. We expect to approach Congress at the next session with a permanent project for an engineering division, but we have not yet located the place.

Mr. ANTHONY. Are you still of the opinion that the old Dayton-Wright plant is the best proposition?

Maj. BANE. I think that is an ideal place, but they will not let go of it now.

Mr. ANTHONY. I would like to have you put in the record a statement of the work you have accomplished at McCook Field during the present fiscal year; that is, what you have accomplished during six months of the present fiscal year that has passed and what you propose to do during the remainder of the fiscal year with the appropriation you have this year. Are you going to expend all the money given you?

Maj. BANE. Yes, sir; we will have no trouble expending it all, and expending it well.

(The statement requested is as follows:)

A BRIEF SUMMARY COVERING THE ACCOMPLISHMENTS AND PROGRESS OF THE ENGINEERING DIVISION, AIR SERVICE, FROM JULY, 1919, TO JULY, 1920.

The functions of the Engineering Division, Air Service, can be outlined as follows:

To design, develop, and test all airplanes, airplane engines, accessories, and materials to meet the requirements of the Air Service; to prepare production drawings, specifications, and, where necessary, models of all aeronautical equipment for production; and to assist and supervise the experimental and production manufacture of all aeronautical equipment being designed and constructed for the Air Service by the aeronautical industry.

Work accomplished from July, 1919, to July, 1920:

AIRPLANES.

TYPE I. SINGLE-SEATER, PURSUIT.

1. *Engineering Division, Model VCP-1*.—Construction and tests completed and developments and improvements progressing.

2. *Thomas-Morse, Model MB-3*.—Four experimental airplanes delivered by Thomas-Morse Aircraft Corporation, under contract. Tests and necessary improvements and developments completed and incorporated in the contract for 50 airplanes being built by the Thomas-Morse Aircraft Corporation, under contract dated June 19, 1920.

3. *Ordnance Engineering, Model Orenco D*.—Four experimental airplanes, delivered by the Ordnance Engineering Corporation, under contract. Tests and necessary improvements and developments completed and incorporated in contract for 50 airplanes, being built by the Curtiss Airplane Corporation, under contract dated June 16, 1920.

4. *Vought, Model VE-8*.—Two experimental airplanes, delivered by the Lewis & Vought Corporation, under contract. Tests and development nearly completed.

5. *Ordnance Model D-2*.—Contract for three experimental airplanes let with the Ordnance Engineering Corporation, April 23, 1920. Supervision and inspection of design and construction being maintained.

6. *Loening Monoplane, Scout*.—Contract for three experimental airplanes let with the Loening Aeronautical Engineering Corporation, April 10, 1920. Supervision and inspection of design and construction being maintained.

All of the above airplanes are powered with Wright 300 horsepower model H engines.

TYPE II. NIGHT PURSUIT, SINGLE-SEATER.

1. *Curtiss Model*.—Contract for three experimental airplanes let with the Curtiss Airplane and Motors Corporation, February 23, 1920. Liberty, 220 horsepower, 6-cylinder engine used. Supervision and inspection of design and construction being maintained. The preliminary layout and design of this type was prepared by the Engineering Division.

TYPE III. COMBAT PURSUIT SINGLE-SEATER. (AIR-COOLED ENGINE.)

Several preliminary layouts of design prepared by Engineering Division. Experimental construction temporarily suspended until suitable engine is developed.

TYPE IV. ARMORED PURSUIT SINGLE-SEATER.

1. *Engineering division model GPX*.—Preliminary layout and design prepared by Engineering Division. Experimental construction temporarily suspended until Wright 300 horsepower Cannon engine is developed.

TYPE V. TWO-SEATER PURSUIT.

1. *Engineering division model XB-1A*.—Design constructed and tested by Engineering Division and made ready for production. The Wright 300 horsepower Model H engine used in this airplane.

TYPE V. ARMORED GROUND ATTACK THREE-SEATER.

1. *Engineering division model GAX*.—Designed, constructed, and tested by Engineering Division. A contract for the production of 10 such airplanes was let with the Boeing Airplane Co., June 15, 1920. Two Liberty 400 horsepower 12-cylinder engines used in this type.

TYPE VII. ARMORED INFANTRY LIAISON TWO-SEATER.

1. *Ordnance model E*.—Contract for the construction of two experimental airplanes let with Ordnance Engineering Corporation, January 26, 1920. Supervision and inspection of design and construction maintained. One Liberty 400 horsepower 12-cylinder engine used in this type.

2. *Lepere model GH-11*.—This model with Liberty 400 horsepower 12-cylinder engine being tested and developed.

TYPE VIII. NIGHT OBSERVATION TWO-SEATER.

1. *Engineering division model XB-1A*.—Designed, constructed, and tested by Engineering Division and made ready for production.

TYPE IX. ARMY AND COAST ARTILLERY OBSERVATION AND SURVEILLANCE THREE-SEATER.

Preliminary study and design made.

TYPE X. CORPS OBSERVATION TWO-SEATER.

1. *Engineering division model XB-1A*.—Designed, constructed, and tested by Engineering Division and made ready for production. A contract for the production of 40 airplanes let with the Dayton-Wright Airplane Co., June 28, 1920.

2 *Empire all-metal model*.—Contract for three experimental airplanes let with the Empire Metal Aircraft Corporation June 28, 1919. Supervision and inspection maintained by the engineering division. The first airplane ready for delivery.

3. *Lepere U. S. A. C.-11*.—Engineering division installed the Moss supercharger in this airplane, resulting in the attainment of remarkable performances.

TYPE XI. DAY BOMBARDMENT.

1. *Engineering division model U. S. D.-9A*.—Developed and ready for production.

TYPE XII. NIGHT BOMBARDMENT (SHORT DISTANCE).

1. *Martin bomber*.—Designed and constructed by Glenn L. Martin Co. and tested, developed, and made ready for production by Engineering division. A contract was let June 9, 1920, for the construction of 20 airplanes of this type by the Glenn L. Martin Co.

TYPE XIII. NIGHT BOMBARDMENT (LONG DISTANCE).

1. *Engineering division model Barling*.—Designed by engineering division. A contract for the construction of two experimental airplanes of this type was let June 23, 1920, with the Wittman-Lewis Co. This type uses six Liberty 400-horsepower 12-cylinder engines and carries a useful load of approximately 18,000 pounds.

TYPE XIV. TRAINING (AIR-COOLED ENGINE).

1. *Huff-Daland model*.—Contract for the construction of three experimental airplanes let with Huff-Daland Co. June 4, 1920.

2. *Elias model*.—Contract for construction of three experimental airplanes let with G. Elias & Bros. June 28, 1920.

3. *Engineering division model XT-1, XT-2*.—Preliminary layout and mockup made by engineering division.

The above types will use the Lawrence 140-horsepower radial air-cooled engine now being developed for the engineering division.

TYPE XV. TRAINING (WATER-COOLED ENGINE).

1. *Engineering division model XT-3*.—Design and experimental airplanes being built by engineering division. The Liberty 220-horsepower 6-cylinder engine used in this type.

2. *Vought model VE-7*.—This type designed and constructed by Lewis & Vought Airplane Co. and tested, developed, and made ready for production by the engineering division.

3. *Curtiss JN Models*.—Designed and constructed by Curtiss Airplane Co. and tested, developed, and made ready for production by the Engineering Division.

TYPE XVI.—SPECIAL HIGH-ALTITUDE ARMY AND COAST SUBVEILLANCE.

Study and design by Engineering Division incorporating Moss superchargers and air-tight compartment features.

MISCELLANEOUS TYPES.

1. *Engineering Division Model VCP-R*.—Official U. S. Government entry in the Gordon-Bennett international cup race. The Model VCP-1 modified to take the Packard 550 horsepower engine. Speed of 190 miles per hour anticipated.

2. *Engineering Division ambulance*.—A DH-4 airplane modified to carry two litters and the pilot and surgeon for emergency transportation by air.

3. *Engineering Division messenger*.—For dispatch service. Designed by Engineering Division, using Lawrence 3-cylinder 60 horsepower engine. Contract let with Lawrence Sperry Aircraft Co., April 14, 1920, for the construction of five experimental airplanes of this type.

4. *Miscellaneous*.—Exhaustive study and various layouts of airplanes to be constructed of metal.

STRUCTURES AND AERODYNAMICS.

Stress calculations and theories.—Stress analysis made and reports issued on structures of 26 completed or projected airplanes.

A stress analysis book, a designer's handbook and design charts were compiled and distributed to airplane designers.

Static testing and methods.—Static load tests and reports made on numerous miscellaneous equipment. Static load tests and reports made on 11 types of airplanes.

Wind tunnel tests.—Thirteen complete models were tests for stability and aerodynamic properties in wind tunnels. Also numerous wing sections and miscellaneous equipment.

PROPELLERS.

Variable and reversible pitch propellers.—Invented by Seth Hart and constructed, tested, and developed and made ready for production by the Engineering Division.

Metal propellers.—Various types constructed by Dicks-Luttrell Co., Standard Steel Propeller Co., and Ionia Steel Propeller Co., being developed and made ready for production by Engineering Division.

Micarta propellers.—Designed and tested by Engineering Division. Built by Westinghouse Electric & Manufacturing Co. Being developed and made ready for production by Engineering Division for several types of airplanes and engines.

Thrustmeter, wind tunnel research and whirling tests being conducted by Engineering Division.

POWER-PLANT SECTION.

Liberty engines.—A large amount of experimental and development work was carried on during this period with the Liberty engines. A vacuum oil pressure control, a new valve tappet adjustment, and the inverted Stromberg carburetor were developed.

A contract was entered into with the Packard Motor Car Co. for assembling a DH-4 airplane and improving the Liberty engine.

Hispano-Suiza engines.—A large amount of experimental and development work on these engines was accomplished during this period, resulting in the improvement of design and functioning of this engine.

Miscellaneous engines.—Numerous tests were made on miscellaneous engines, both of American and foreign design and manufacture.

A contract was entered into with the Packard Motor Car Co. for the design and construction of three types of engines: (1) An 8-cylinder, V type, developing around 180 horsepower; (2) a 12-cylinder, V type, developing around 300 horsepower; and (3) a 12-cylinder, V type, developing around 550 horsepower. All types were received and tested. Engineering Division model W, an 18-cylinder engine of 700 horsepower, was completely designed by the Engineering Division and practically all parts were started in construction. Some of the parts manufactured by the Engineering Division and some by outside manufacturers.

Air-cooled engine.—A large amount of experimental work and study was devoted to air-cooled engines. Exhaustive tests conducted on several existing types.

A 3-cylinder horsepower engine, designed and manufactured by the Lawrence Aero Engine Corporation, was tested and improved for production. A contract was let with the Lawrence Aero Engine Corporation for the design and construction of a 9-cylinder 140-horsepower air-cooled engine.

A competition for the design and construction of the 9-cylinder 350 horsepower radial air-cooled engine was conducted, and two contracts were let, one with the Wright Aeronautical Corporation and one with Fred A. Weinberg.

ACCESSORIES.

Numerous tests and reports made covering power-plant accessories, such as pistons, piston rings, spark plugs, carburetors, magnetos, fuel systems, and cooling systems.

Research.—Exhaustive tests in an altitude chamber conducted in cooperation with Bureau of Standards on various engines.

Superchargers.—Extensive flight tests were conducted with the Moss supercharger installed on the Liberty engine in a Lepere airplane. During these tests the world's altitude record was broken.

Installations.—Improved methods of engine installations in airplanes constructed for the Government were compiled and included in Handbook of Instructions for Designers and published for the information and guidance of the aeronautical industry.

EQUIPMENT SECTION.

Leak-proof tanks.—During this period 65 experimental leak-proof tanks were tested by the equipment section, resulting in specifications and illustrated drawings for production purposes.

Instruments.—Numerous aeronautical instruments, including a gasoline-level gauge, a gyroscopic compass, an air compass, and oxygen apparatus, were developed and made ready for production.

Electrical.—Numerous electrical apparatus were tested and developed and made ready for production, including an electrical tachometer, engine-driven generators for heating, lighting, radio, and ignition.

Electrical engine starters were thoroughly tested, developed, and made ready for production.

Flotation gear.—Flotation gears, to be installed on land machines, to provide against forced landing in water, were designed, tested, and made ready for production.

Field shelter and equipment.—Several types of tent hangars were contracted for and erected for service tests.

A field engine cranker was designed, built, and put into use.

A field lighting system was designed and made ready for use on semipermanent and permanent landing fields where night flying is done.

Parachutes.—A large number of test parachute drops were made, resulting in a design of parachute for use by all flying personnel.

Radio.—Exhaustive tests and development accomplished with wireless telephone and telegraph apparatus and their installation and operation in aircraft.

Photographic.—Both air and laboratory tests made on various types of cameras and the methods of installation and operation in aircraft improved.

MATERIALS SECTION.

This section has conducted numerous investigations and laboratory tests on all raw materials that go into the make-up of aeronautical equipment and prepares specifications for raw materials. This work is carried on by the following subsections, namely: Chemical, metallurgical, textiles and rubber, physical testing, woods, plywoods, glues, etc.

ARMAMENT SECTION.

Machine guns.—The Ordnance Department is responsible for the development and design of all types of machine guns. The armament section, however, provides for the proper installation and modification to adapt these guns for their use. This has been accomplished with the following machine guns; namely, the Vickers, 11 millimeter, .30 caliber; the Browning, .30 caliber and .50 caliber; the Marlin, .30 caliber; and the Lewis, .30 caliber.

Flexible mounts.—Extensive work accomplished upon the design, construction, and development of new types of mounts for flexible guns.

Design has been made and a model constructed for mounting the .50-caliber Browning machine gun as a flexible gun.

SYNCHRONIZING DEVICES.

Nelson-gun control.—During this period the Engineering Division accomplished a satisfactory installation and operation of this mechanical gun control.

An electrical synchronizing device was designed and tested with satisfactory results.

Cannon.—A 37-millimeter automatic Baldwin cannon was satisfactorily mounted and operated from aircraft.

A 2.95-inch Mountain gun was installed and tested in a Martin Bomber with satisfactory results.

Bombs and bombing equipment.—Satisfactory progress made in proving the installation and operation of bombing equipment.

TECHNICAL DATA SECTION.

This section receives, sorts, and otherwise prepares for distribution all technical data distributed by the information group, Air Service, for information and guidance of the military and civilian aeronautical organization of the United States.

FLYING SECTION.

This section made approximately 2,000 test flights during this period in determining the air performances of aeronautical equipment.

In addition to the work accomplished for purely military purposes as outlined above, the Engineering Division has given an infinite amount of assistance to the aeronautical industry of this country and for the promotion of commercial aeronautics.

A BRIEF SUMMARY COVERING THE ACCOMPLISHMENTS AND PROGRESS OF THE ENGINEERING DIVISION, AIR SERVICE, FROM JULY, 1920, TO JANUARY, 1921.

AIRPLANES.

PURSUIT TYPE.

Engineering division model PW-1.—Experimental construction started at McCook Field. This airplane to be of metal construction and built around the Packard 300-horsepower, 12-cylinder engine.

Contract let for experimental airplanes of metal construction to be built around the new 350-horsepower Radial air-cooled engine developed during last fiscal year.

Delivery of Thomas-Morse Model MB-3 and Ordnance Engineering Model Orenco D airplanes being made and tested for service use.

ATTACK TYPE.

Contract let for single-seater armored attack airplane of metal construction to be built around the Wright 300-horsepower Cannon engine developed last fiscal year.

OBSERVATION TYPE.

Engineering division model C. O. 1.—An internally braced monoplane of metal construction built around the Liberty 400-horsepower, 12-cylinder engine started at McCook Field.

Engineering division model C. O. 2.—An experimental biplane of metal construction built around the Liberty 400-horsepower, 12-cylinder engine started at McCook Field.

XB-1-A type.—Delivery being made of this type ordered on contract in June, 1920. These are being tested for service use.

BOMBARDMENT TYPE.

Contract let for experimental construction of internally braced monoplane of metal construction to be built around the Engineering Division model 700-horsepower "W" engine.

Contract let for experimental construction of wings only of the three Liberty internally braced monoplanes of metal construction. The contract for complete airplanes of this type suspended until results of wing construction is determined.

Delivery of Martin bombers contracted for June 9, 1920, being made. These airplanes are being tested for service use.

MISCELLANEOUS TYPES.

Engineering division VCP-R, with 600-horsepower Packard engine, completed, tested, and entered in the Pulitzer race. This airplane won the race with a speed of 188 miles per hour.

Messenger airplane.—Delivery being made of this type contracted for last fiscal year. Tests indicate very satisfactory results.

Exhaustive tests and construction being continued of metal airplanes.

Ambulance airplane.—A Curtiss "Eagle" airplane built around the Liberty 400-horsepower 12-cylinder engine is being converted for ambulance purposes.

POWER PLANT.

Engineering division model 700-horsepower "W" engine.—This experimental engine is being assembled and made ready for tests.

Model 350-horsepower radial air-cooled engine.—These experimental engines are being assembled at factories and made ready for tests.

Model Wright 300-horsepower cannon engine.—Sufficiently satisfactory results obtained to warrant the installation of this engine in a single-seater armored attack airplane.

Packard models, 8-cylinder 160-horsepower, 12-cylinder, 300-horsepower, and 12-cylinder 600-horsepower engines.—Being tested, developed, and made ready for production.

Lawrence 9-cylinder 140-horsepower air-cooled engine.—Being assembled at factory for tests.

ACCESSORIES.

Tests and development of accessories enumerated in program of last fiscal year being continued.

PROPELLERS.

A steel reversible pitch propeller was built and is being tested.

Micarta propellers for Liberty engines being delivered and tested for service use.

EQUIPMENT.

Leak-proof tanks, instruments, electrical apparatus, parachutes, radio and photographic apparatus, having passed experimental stages during the last fiscal year, are being produced for service use.

Development and tests being continued on all this equipment, with improvements of design, construction, and operation in mind.

Armament.—The 2.95-inch cannon mounted in a Martin bomber is receiving further tests and being made ready for installation in service machines.

The electrical synchronizer has received further tests and is being made ready for production.

The 37-mm. automatic Baldwin cannon with flexible mount will be installed on service airplanes.

Tests and improvements continue on all armament apparatus outlined in program of work for last fiscal year.

MATERIALS SECTION.

An armored airplane, capable of resisting the armor-piercing bullet at 2,400-foot-seconds velocity, has been developed.

Steel specifications for airplane construction have been improved and simplified.

PROGRAM OF WORK OF THE ENGINEERING DIVISION, AIR SERVICE, FROM JANUARY, 1921, TO JULY, 1921.

1. During these six months a strict and thorough supervision and inspection will be maintained over all airplanes, engines, and aeronautical equipment now undergoing experimental design and construction.

2. Exhaustive tests and necessary modifications and improvements will be carried on to prepare this equipment for production, manufacture, and service use.

3. An experimental order for a 3-seater armored ground attack to be let. This airplane to be constructed of metal and to carry 8 or 9 machine guns and a 37-mm. cannon.

4. An experimental order for a night bombardment airplane with three Liberty engines to be let. This airplane is to be constructed of metal and of internally-braced monoplane design.

5. The Engineering Division will carry on the study and design of a 1,000-horsepower aeronautical engine.

6. The Moss supercharger being built under contract with the General Electric Co. will be installed on the Liberty engines of the Martin bomber and other suitable service types of airplanes.

7. Suitable apparatus for carrying 2,000 and 3,000 pound bombs will be installed on the large bombers.

8. Variable and reversible pitch propellers and Micarta propellers will be constructed in quantity and furnished for service use.

9. The Engineering Division, in addition to the work outlined above, will continue a thorough survey of all aeronautical equipment now on hand as a result of material accumulated during the war, and devise methods by which this material can be used up economically.

PAY OF CIVILIAN EMPLOYEES.

Mr. ANTHONY. The bulk of the money is expended for skilled labor, is it not?

Maj. BANE. In the whole appropriation the pay roll is the biggest feature. That is a little over \$2,200,000. That includes all our designers and draftsmen, all of the testing engineers and also the mechanics who operate the planes, run the laboratories, and a few laborers.

Mr. ANTHONY. Have you any high-priced civilian engineers?

Maj. BANE. Yes, sir; we have a number. The highest salary paid at Dayton for engineers is \$5,500.

Mr. ANTHONY. How many civilian engineers have you there?

Maj. BANE. At that rate, about six.

Mr. ANTHONY. Altogether?

Maj. BANE. There are 1,200 civilian employees there, and there are, I should say, about 190 of them classified as engineers, about 50 of whom have salaries running from \$3,000 to \$5,500.

Mr. ANTHONY. What do you call them, mechanical engineers?

Maj. BANE. Aeronautical engineers.

Mr. ANTHONY. What is the necessity for so many?

Maj. BANE. The mechanical engineers and physicists are working on navigation problems, the aeronautical engineers are working in groups, and then we have a research outfit—

Mr. ANTHONY (interposing). And the pay of these men runs from \$3,000 to \$5,500?

Maj. BANE. Yes, sir.

Mr. ANTHONY. You might put a statement of those salaries in the record.

Maj. BANE. It is all in the record, itemized. There are nine aeronautical chemists.

(The statement requested is as follows:)

ENGINEERING DIVISION, AIR SERVICE, MCCOOK FIELD, DAYTON, OHIO.

List of civilian employees.

Employees.	Rate.	Estimated for 1922.	Ex- pended in 1920.	Total estimated for 1922.
Aeronautical chemist.....	\$4,500	1	.....	\$4,500
Do.....	2,600	2	.....	5,200
Do.....	2,400	2	1	4,800
Do.....	2,200	2	2	4,400
Do.....	1,800	2	1	3,600
Aeronautical computer.....	1,800	1	.....	1,800
Do.....	1,500	1	1	1,500
Do.....	1,320	2	1	2,640
Aeronautical draftsman.....	2,800	11	10	30,800
Do.....	2,600	10	9	26,000
Do.....	2,500	10	9	25,000
Do.....	2,400	8	8	19,200
Do.....	2,300	15	15	34,500
Do.....	2,200	8	6	17,600
Do.....	2,100	8	8	16,800
Do.....	2,080	5	5	10,300
Do.....	1,860	8	8	14,880
Do.....	1,680	7	7	11,760
Do.....	1,560	9	9	14,040
Do.....	1,400	11	11	15,400
Apprentice draftsman.....	1,300	1	.....	1,300
Do.....	1,260	5	1	6,300
Do.....	1,200	5	2	6,000
Do.....	1,020	1	1	1,020
Aeronautical designers.....	3,600	10	3	36,000
Do.....	3,300	12	3	39,600
Do.....	3,200	8	2	25,600
Do.....	3,000	10	3	30,000
Do.....	2,800	13	7	36,400
Do.....	2,500	14	10	35,000
Do.....	2,400	10	10	24,000
Aeronautical engineers.....	5,500	4	1	22,000
Do.....	5,000	2	.....	10,000
Do.....	4,000	2	.....	8,000
Do.....	3,600	5	1	18,000
Do.....	3,000	3	.....	9,000
Do.....	2,800	3	.....	8,400
Aeronautical mechanical engineer.....	5,500	2	2	11,000
Do.....	4,600	1	2	4,600
Do.....	4,000	5	1	20,000
Do.....	3,600	5	2	18,000
Do.....	3,300	5	3	16,500
Do.....	3,000	5	5	15,000
Do.....	2,800	4	5	11,200
Do.....	2,500	5	2	12,500
Do.....	2,400	5	2	12,000
Aeronautical mechanical engineer.....	2,300	3	10	6,900
Aeronautical materials testing engineer.....	4,000	2	.....	8,000
Do.....	3,600	1	2	3,600
Do.....	3,300	1	1	3,300
Do.....	3,000	1	1	3,000
Do.....	2,800	1	1	2,800
Do.....	2,500	1	1	2,500
Do.....	2,200	3	2	6,600
Do.....	2,000	2	3	4,000
Aeronautical structural engineer.....	3,800	1	1	3,800
Do.....	3,600	1	1	3,600
Do.....	3,000	1	1	3,000
Do.....	2,800	1	1	2,800
Do.....	2,400	1	1	2,400
Aircraft fabric coverer.....	1,945	1	1	1,945
Do.....	1,830	1	2	1,830
Do.....	1,716	1	1	1,716
Do.....	1,600	1	.....	1,600
Do.....	1,375	1	.....	1,375
Airplane assemblers.....	2,285	1	.....	2,285
Do.....	2,060	1	.....	2,060
Do.....	1,945	1	.....	1,945
Do.....	1,830	2	.....	3,660
Do.....	1,717	3	1	5,151
Enl. assemblers.....	2,288	2	6	4,596
Do.....	2,060	7	7	14,420
Do.....	1,948	3	2	5,844
Do.....	1,830	7	5	12,810
Do.....	1,700	2	6	3,400

List of civilian employees—Continued.

Employees.	Rate.	Esti- mated for 1922.	Ex- pended in 1920.	Total estimated for 1922.
Attorneys.....	\$6,000	2	.....	\$12,000
Do.....	5,000	1	1	5,000
Do.....	3,600	1	1	3,600
Auto mechanic.....	2,000	4	3	8,000
Do.....	1,800	2	1	3,600
Do.....	1,500	3	1	4,500
Do.....	1,400	2	2	2,800
Aviation engineering mechanic.....	3,600	1	1	3,600
Do.....	3,000	1	1	3,000
Do.....	2,500	1	1	2,500
Do.....	2,288	5	4	11,440
Do.....	2,060	2	1	4,120
Do.....	1,830	2	2	3,660
Do.....	1,715	1	.....	1,715
Aviation mechanic.....	3,000	1	.....	3,000
Do.....	2,800	2	1	5,600
Do.....	2,500	6	4	15,000
Do.....	2,400	5	4	12,000
Do.....	2,300	4	3	9,200
Do.....	2,291	3	2	6,873
Do.....	2,200	6	5	13,200
Do.....	2,180	3	3	6,540
Do.....	2,100	5	5	10,500
Do.....	2,060	7	7	14,420
Do.....	1,950	6	6	11,700
Do.....	1,830	6	6	10,980
Do.....	1,800	4	4	7,200
Do.....	1,700	5	3	8,500
Do.....	1,680	2	2	3,360
Do.....	1,608	2	3	3,216
Do.....	1,560	4	4	6,240
Do.....	1,490	3	3	4,470
Aviation mechanic helper.....	1,440	7	7	10,080
Do.....	1,080	7	12	7,560
Blacksmith.....	2,288	1	1	2,288
Do.....	1,602	1	.....	1,602
Brick mason.....	2,860	1	.....	2,860
Cabinetmaker.....	2,800	1	.....	2,800
Do.....	2,288	1	1	2,288
Do.....	2,175	3	4	7,525
Do.....	1,945	10	14	19,450
Do.....	1,825	1	1	1,825
Camouflage expert.....	3,200	1	1	3,200
Carpenter.....	2,800	1	1	2,800
Do.....	2,500	1	1	2,500
Do.....	2,400	3	3	7,200
Do.....	2,100	2	2	4,200
Do.....	2,000	13	13	26,000
Chauffeur.....	1,600	10	8	16,000
Do.....	1,400	17	10	23,800
Do.....	1,300	3	9	3,900
Clerks (typist, file, index, minor, etc.).....	1,680	6	1	9,720
Do.....	1,560	7	4	10,920
Do.....	1,500	3	2	4,500
Do.....	1,440	25	8	32,400
Do.....	1,400	12	20	17,200
Do.....	1,320	9	4	11,880
Do.....	1,260	25	3	31,500
Do.....	1,200	7	16	8,400
Do.....	1,120	8	4	8,960
Do.....	1,080	3	4	3,240
Clerks (qualified in business administration; principal, secretaries, accounting, and stenographers).....	2,600	1	1	2,600
Do.....	2,500	1	1	2,500
Do.....	2,400	7	6	16,200
Do.....	2,300	3	4	11,700
Do.....	2,100	9	10	20,700
Do.....	2,000	7	15	14,000
Do.....	1,960	7	7	13,720
Do.....	1,820	16	20	29,120
Do.....	1,800	12	20	21,600
Do.....	1,740	4	10	6,960
Do.....	1,680	9	10	15,120
Do.....	1,620	1	1	1,620
Do.....	1,560	14	15	21,840
Do.....	1,500	3	10	4,500
Do.....	1,440	14	10	20,160
Do.....	1,380	11	20	15,180
Do.....	1,300	6	2	8,200
Do.....	1,200	2	2	2,400

List of civilian employees—Continued.

Employees.	Rate.	Estimated for 1922.	Ex- pended in 1920.	Total estimated for 1922.
Clerks (property, stock, and stores).....	\$2,500	2	2	\$5,000
Do.....	2,100	2	2	4,200
Do.....	1,980	1	1	1,980
Do.....	1,920	3	3	5,760
Do.....	1,800	5	5	9,000
Do.....	1,690	15	15	25,200
Do.....	1,620	5	5	8,100
Do.....	1,560	13	13	20,280
Do.....	1,440	7	8	10,080
Do.....	1,200	1	2	1,200
Cost accountant.....	6,000	1	1	6,000
Do.....	3,000	1	3	3,000
Do.....	2,800	2	2	5,600
Do.....	2,500	2	1	5,000
Do.....	2,400	2	1	4,800
Do.....	2,100	1	.....	2,100
Dopers.....	2,288	2	2	4,576
Do.....	2,059	1	.....	2,059
Electricians.....	2,700	1	1	2,700
Do.....	2,100	10	9	21,000
Do.....	1,800	2	1	3,600
Do.....	1,500	4	2	6,000
Power-plant engineer.....	2,500	1	1	2,500
Do.....	2,100	1	1	2,100
Expert in business administration.....	5,000	1	1	5,000
Do.....	4,000	1	1	4,000
Do.....	2,500	1	.....	2,500
Fireman (stationary boiler).....	2,100	1	.....	2,100
Do.....	1,800	7	7	12,600
Do.....	1,680	2	2	3,360
Do.....	1,500	4	4	6,000
Foreman (general and various).....	4,500	1	1	4,500
Do.....	4,000	1	1	4,000
Do.....	3,800	2	1	7,600
Do.....	3,600	2	1	7,200
Do.....	3,200	2	1	6,400
Do.....	3,000	5	4	15,000
Do.....	2,800	1	1	2,800
Do.....	2,500	4	4	10,000
Do.....	2,400	2	2	4,800
Do.....	2,200	2	2	4,400
Do.....	2,100	1	1	2,100
Do.....	1,800	2	1	3,600
Do.....	1,500	1	2	1,500
Guard.....	2,800	1	3	2,800
Do.....	1,800	4	.....	7,200
Do.....	1,500	50	43	75,000
Inspectors (airplanes and submarines).....	3,300	1	1	3,300
Do.....	3,200	1	1	3,200
Do.....	3,000	1	1	3,000
Do.....	2,800	1	1	2,800
Do.....	2,500	3	3	7,500
Do.....	2,400	5	5	12,000
Do.....	2,200	1	1	2,200
Do.....	2,100	2	1	4,200
Do.....	2,000	2	1	4,000
Do.....	1,800	2	1	3,600
Instrument maker.....	2,800	1	1	2,800
Do.....	2,400	2	.....	4,800
Do.....	2,100	2	1	4,200
Do.....	2,288	1	1	2,288
Instrument observer.....	2,100	1	1	2,100
Janitor.....	1,620	1	.....	1,620
Do.....	1,500	2	2	3,000
Do.....	1,320	1	1	1,320
Do.....	1,300	22	20	28,600
Do.....	900	1	1	900
Laborer, skilled.....	1,487	8	1	11,896
Do.....	1,800	1	1	1,800
Do.....	1,500	2	.....	3,000
Laborer, skilled.....	1,440	2	.....	2,880
Do.....	1,320	8	.....	10,560
Laborer, common.....	1,374	20	20	27,480
Do.....	1,258	60	69	75,480
Laboratory aid.....	1,500	6	6	9,000
Do.....	1,400	2	2	2,800
Do.....	1,200	3	2	3,600

List of civilian employees—Continued.

Employees.	Rate.	Estimated for 1922.	Ex- pended in 1920.	Total estimated for 1922.
Machinist.....	\$2,550	14	12	\$35,700
Do.....	2,400	22	21	52,800
Do.....	2,295	12	12	27,540
Do.....	2,175	15	15	32,625
Do.....	2,080	4	4	8,240
Do.....	1,950	5	5	9,750
Do.....	1,830	3	3	5,490
Do.....	1,720	5	5	8,600
Do.....	1,610	2	2	3,220
Matron.....	1,400	1	1	1,400
Messenger.....	840	2	5	1,680
Do.....	780	5	5	3,900
Do.....	720	10	10	7,200
Do.....	540	8	8	4,320
Metal fittings makers.....	2,516	3	2	7,548
Do.....	2,402	8	7	19,216
Do.....	2,288	6	5	13,728
Do.....	2,174	3	2	6,522
Do.....	2,080	5	5	10,300
Metal spinner.....	2,516	1	1	2,516
Do.....	2,288	1	.....	2,288
Metallurgists.....	3,600	1	1	3,600
Do.....	2,800	1	1	2,800
Millwright.....	2,100	2	3	4,200
Do.....	1,920	2	.....	3,840
Do.....	1,945	1	.....	1,945
Molder.....	2,400	1	1	2,400
Multigraph operator.....	2,000	1	1	2,000
Blue print operator and sensitizer.....	2,200	1	1	2,200
Do.....	1,920	1	1	1,920
Do.....	1,800	1	2	1,800
Do.....	1,560	2	3	3,120
Do.....	1,440	1	2	1,440
Comptometer operator.....	1,500	1	2	1,500
Do.....	1,400	2	1	2,800
Do.....	1,280	2	1	2,560
Tabulating machine operator.....	1,800	1	1	1,800
Do.....	1,400	1	.....	1,400
Painter.....	1,920	2	2	3,840
Do.....	1,860	2	2	3,720
Do.....	2,403	1	1	2,403
Parachute engineer.....	4,000	1	1	4,000
Do.....	3,300	2	.....	6,600
Pattern maker.....	2,860	8	7	23,280
Photographer.....	2,800	1	1	2,800
Do.....	2,500	1	1	2,500
Do.....	2,300	2	1	4,600
Do.....	2,100	1	1	2,100
Do.....	1,920	4	2	7,680
Do.....	1,560	2	2	3,120
Photostat operator.....	2,100	1	1	2,100
Do.....	1,640	1	1	1,640
Do.....	1,560	1	.....	1,560
Physicist.....	4,200	1	2	4,200
Do.....	3,400	1	.....	3,400
Do.....	3,000	1	1	3,000
Do.....	2,400	1	.....	2,400
Plumber.....	2,340	3	3	7,020
Pressman and press feeder.....	2,100	1	1	2,100
Do.....	1,200	1	1	1,200
Do.....	1,080	1	.....	1,080
Production expert.....	3,600	1	1	3,600
Do.....	3,000	2	1	6,000
Propeller maker.....	2,400	8	8	19,200
Do.....	2,240	2	3	4,720
Property expert.....	3,400	1	1	3,400
Purchasing agent.....	3,200	1	1	3,200
Do.....	3,000	1	.....	3,000
Do.....	2,500	1	.....	2,500
Radio mechanic.....	2,100	1	1	2,100
Do.....	1,400	2	1	2,800
Rigger.....	2,100	4	4	8,400
Salvage expert.....	2,500	1	.....	2,500
Screw-machine operator.....	2,240	1	1	2,240
Do.....	2,175	2	2	4,350
Do.....	1,830	1	2	3,660

List of civilian employees—Continued.

Employees.	Rate.	Estimated for 1922.	Expended in 1920.	Total estimated for 1922.
Sheet-metal worker.....	\$1,160	1	1	\$2,160
Do.....	2,525	3	2	7,575
Do.....	2,400	20	10	48,000
Do.....	2,290	6	2	13,740
Do.....	2,175	5	1	10,875
Do.....	2,060	5	1	10,300
Steam fitter.....	2,360	2	2	4,720
Do.....	2,160	5	4	10,800
Do.....	1,900	2	3	3,800
Storekeepers.....	3,000	1	1	3,000
Do.....	2,800	1	1	2,800
Do.....	1,920	1	1	1,920
Do.....	1,800	2	.....	3,600
Superintendent of factory.....	7,200	1	1	7,200
Superintendent of stores.....	4,800	1	1	4,800
Tool crib attendant.....	1,440	2	1	2,880
Traffic expert.....	2,800	1	1	2,800
Do.....	2,400	1	.....	2,400
Trained nurse.....	1,800	1	1	1,800
Tube benders.....	2,515	5	1	12,575
Do.....	2,400	4	1	9,600
Do.....	2,306	1	.....	2,306
Typesetter (foreman).....	2,800	1	1	2,800
Upholsterer.....	2,173	1	1	2,173
Do.....	2,060	1	1	2,060
Do.....	1,830	2	2	3,660
Varnisher.....	2,288	3	2	6,864
Do.....	1,944	2	2	3,888
Watchmaker.....	2,800	1	1	2,800
Do.....	2,500	1	.....	2,500
Welder.....	2,860	1	1	2,860
Do.....	2,500	2	1	5,000
Do.....	2,400	2	1	4,800
Do.....	2,290	2	.....	4,580
Do.....	2,190	2	.....	4,380
Wood machine operator.....	2,288	2	2	4,576
Do.....	2,173	4	4	8,692
Do.....	2,060	1	1	2,060
Total.....	.....	1,416	1,216	2,612,000

NECESSITY FOR EMPLOYING AERONAUTICAL CHEMISTS.

Mr. ANTHONY. Take the work of an aeronautical chemist. Do not the commercial plants make all of that investigation which is necessary? Do you not duplicate the work?

Maj. BANE. No, sir. They will not handle a special adaptation of it to the airplane. Of course, every piece of bar steel that comes to McCook Field has to have a chemical analysis, and these men have to do that.

Mr. ANTHONY. You mean that if you give a big steel company an order for steel you have got to analyze that steel?

Maj. BANE. Absolutely; and not only do we do that, but every plant receiving steel analyzes it. That is a necessary thing because you can not determine the analysis by looking at it.

PROGRESS IN DEVELOPMENT OF WAR PLANES.

Day before yesterday we fired a 3-inch cannon in the air at Dayton. I think that is an advance, firing that cannon from the air.

Mr. ANTHONY. That just shows that you have a plane that is powerful to withstand the shock.

Maj. BANE. It shows we are making a start in firing the actual cannon. Last year we fired the 37-millimeter, and then we advanced to the 3-inch, and there is no reason why we can not keep on going.

Mr. ANTHONY. What advantage is that?

Maj. BANE. That means the penetration of 3-inch armor. We can fire over battleships and do some damage. That is a step we have taken in advance. I feel that right now we can go out and put battleships out of action with the facilities we now have. We have only been at it four years, while the Navy has been developing its guns for 300 years. Our accuracy for 200 miles is better than their accuracy at a range of 40,000 yards.

Mr. ANTHONY. In your opinion, what is the best proposition for the Government, the development of the big type of bombing machine that I noticed when I was out at Dayton last year, or the development of what we called the combat fighting plane?

Maj. BANE. You have to develop them both, hand in hand. You could not put the big bombing plane in the air unless you first swept the air of the enemy's pursuit planes, and you can only do that by the use of pursuit planes of superior performance.

Mr. ANTHONY. If we are going to protect our shores from hostile planes we need more combat planes, do we not?

Maj. BANE. You have to have them first in the air to get the pursuit planes of the enemy out of the air, and then you want your big bombing planes operating on the enemy's battleships that may attack the coast.

Mr. ANTHONY. Those big clumsy looking machines that I saw out there—do you think they are really effective?

Maj. BANE. They are not clumsy. I flew one of those bombers from Washington to New York, and I can fly it with two fingers. There is nothing clumsy about it.

Mr. ANTHONY. As a matter of fact, would not one of those machines be an easy target for a smaller combat machine in the air?

Maj. BANE. Absolutely; and that is the reason we must have pursuit machines to protect them.

Mr. ANTHONY. They are secondary fighting airplanes for the big bombing machines?

Maj. BANE. Yes, sir; pursuit airplanes are used to fight and destroy all types of the enemy's airplanes and to protect our own airplanes.

Mr. ANTHONY. It looked to me as if we were going too largely into the heavy bombing and observation types of machine and not going sufficiently strong into the combat planes.

Maj. BANE. It is like the development of your ground troops. You must have the proper proportion of Infantry, Cavalry, and Field Artillery. In the air you must have the proper proportion of the different kinds of planes. If you have that, you can do very good work.

Mr. Sisson. That would depend somewhat on the development of the foreign nations, would it not? Suppose the policy of foreign nations should be to have a very great number of combat planes and a very small number of others. You would have the necessary number of combat planes to meet the enemy's?

Maj. BANE. Yes; but you would have to have the others to meet their navy.

Mr. Sisson. Following up the inquiry of Mr. Anthony about the second defense in the air, I do not think you meant to state that it was secondary in importance, but simply second in the order of defense.

Maj. BANE. That is correct. It would be second in order, but I would like to impress on the committee and on the country the fact that we can now attack the elements on the ground with the armored airplane, which has eight machine guns and a 37-millimeter cannon, and which can sweep across a road where troops are and absolutely annihilate them. There is no doubt about that. That airplane is flying now; 10 of them are being built; and I am of the opinion that you can prevent a concentration of an enemy on either of our borders with those airplanes alone, because they can mow down people.

Mr. CRAMTON. I believe you mentioned four classes of planes.

Maj. BANE. Pursuit, observation, bombardment, and attack planes.

Mr. CRAMTON. In which of those classes was the chief development in their use in the Great War?

Maj. BANE. The pursuit, I should say.

Mr. CRAMTON. They never got very strongly to the bombardment and the attack?

Maj. BANE. No, sir; the attack was just coming in at the end of the war.

Mr. ANTHONY. But we built nothing but bombardment and observation planes.

Maj. BANE. Yes. Of course, the first development was the observation plane.

Mr. ANTHONY. You look forward to the time in war when the bombardment and attack planes will be tremendously advanced in use over their use in the Great War?

Maj. BANE. Absolutely. The Great War was a very special war, was it not? It was all in one place, and you do not know whether we will have another war of that sort.

Mr. ANTHONY. Furthermore, you have not experimented with the bombardment and attack types?

Maj. BANE. No. I want to refer to another point brought out yesterday in reference to antiaircraft fire. Of course, that fire on the ground is more dangerous for airplanes than any antiaircraft fire from a battleship. Antiaircraft fire on the ground can be concentrated on the attacking airplanes, while on a battleship you have the antiaircraft fire at one point, resulting in much less accuracy. There is no reason for not believing that you would be fairly safe in flying at a battleship on the sea, even with antiaircraft guns on the ship.

Mr. CRAMTON. The possibilities of a conflict between an air fleet and a fleet upon the water is largely problematical as yet?

Maj. BANE. Yes, sir; but such experiments as that on the *Indiana* and the ones the French are getting ready to perform will show definitely the result of that kind of action. I know that the thing has been demonstrated well enough already.

Mr. Sisson. And that you would be able to destroy a battleship from the air?

Maj. BANE. Certainly; yes, sir. They have no protection.

Mr. Sisson. If you can destroy one, then you can destroy any number of battleships, if you have enough planes?

Maj. BANE. Yes. Why can we not fly down and fly into the battleship? We can fly, I believe, within 100 feet, and they can get in there at the rate of speed they are going. They may be shot down during the performance, but that ship is gone. The explosion on the *Indiana* put the ship out of action. It did not kill everybody on board, but the gases and flames went down into the engine room and put the ship out of action. One 100-pound bomb that exploded within 40 feet of the stern of the ship hits the propeller and that puts the ship out of action, and that is all we care about. We can put them out of action. We know that now.

Mr. ANTHONY. You said you had several hundred civilian aeronautical engineers employed at Dayton?

Maj. BANE. Yes, sir.

DEVELOPMENT OF AERONAUTICAL ENGINEERS.

Mr. ANTHONY. Have you developed any aeronautical engineers among your enlisted or commissioned personnel?

Maj. BANE. Among the commissioned personnel, yes; among the enlisted men, no. The enlisted man's education is not of the character so that you can develop him.

Mr. ANTHONY. How many of your commissioned officers would you classify as aeronautical engineers?

Maj. BANE. I should say we have about 10 who could be classified as such. We have 39 officers and 6 or 8 who are thermodynamic engineers.

Mr. ANTHONY. Take the Ordnance Department. It largely relies upon its commissioned personnel for its engineering force.

Maj. BANE. Yes, sir; I was in the Ordnance Department.

Mr. ANTHONY. Will the time come when your service will do the same thing?

Maj. BANE. To a large extent. We are getting more and more every year. We have eight men now at the Massachusetts Institute of Technology taking courses in aeronautical engineering. We have also some men in a school of engineering at Dayton taking courses. But we are so short of officers that we have not been able to get enough out of the school there. We have been in a position where the officers have been going out every year and being discharged. This is a very new branch and we have not gotten stabilized yet. I should say we will have at least 100 officers at Dayton, 35 of whom are aeronautical engineers.

RESULTS OF THE WORK OF THE EXPERIMENTAL STATION.

Mr. ANTHONY. What concrete things have come out of your experimental work during the last year?

Maj. BANE. I should say the attack machine, which is a new thing.

Mr. ANTHONY. That attack machine is a bombarding machine?

Maj. BANE. Yes, sir; with eight machine guns, a 37-millimeter cannon, and developed for the purpose of attacking elements on the ground. Then there is the development of the cannon firing from the air, and then we have had a lot of engine development. We are developing three engines of eight cylinders, with 160 horsepower.

Packard engines, and also 380-horsepower, 12-cylinder Packard engine, and the engine which flew in the races at Long Island, which was a 650-horsepower engine. All three of those engines were built during the last year.

Mr. ANTHONY. Built at your plant?

Maj. BANE. No, sir; built under our supervision. We checked over everything. Those were built at the Packard Co.'s plant. We are building out there a 700-horsepower, 18-cylinder engine at our plant. That is being assembled now at Dayton.

Mr. ANTHONY. Take the Thomas-Morse machine you are buying for your pursuit machines. That was developed commercially?

Maj. BANE. That was developed by the Thomas-Morse Co., at Ithaca, under our supervision.

Mr. ANTHONY. How big a plant have they in which to develop a machine like that?

Maj. BANE. They had a big plant where they manufactured a number of airplanes during the war.

Mr. ANTHONY. How many men do they employ?

Maj. BANE. Not over 175.

Mr. ANTHONY. I had never heard of that plant until I saw this machine flying at Dayton.

Maj. BANE. We have been developing it for quite awhile. The machine was perfectly useless when we got it. We have been making the machine a possible military machine. It had the fundamentals, but it has to be made into a military machine. It took two days to take the engines out of the machine, and it took a day to change the tail skid. We redesigned the entire machine, and it went to final production with 39 changes in it.

Mr. ANTHONY. You found it had the salient features?

Maj. BANE. But it had to be changed to make it into a military machine. The civilian does not understand the use of military aircraft.

Mr. Sisson. Is this company at Ithaca making the Ithaca gun?

Maj. BANE. I am not familiar with that gun. I do not believe they do.

Mr. Sisson. This is not a military gun; it is a gun made in Ithaca, N. Y.

Maj. BANE. No; that is a different thing. They do not make that. They make a noiseless chain drive and some engines.

COMPARISON OF COST OF AIRPLANES AND BATTLESHIPS.

Mr. Sisson. In the line of economy of defense, I understand that a battleship or a cruiser now, properly equipped, of the present type and at the present cost of steel, labor, and so forth, runs between forty and fifty million dollars in cost?

Maj. BANE. Yes, sir.

Mr. Sisson. In the development of defense, how much more could be done if the aircraft should be successful in destroying battleships, by developing a sufficient number of planes to destroy the battleships?

Maj. BANE. I should say for the price of one battleship you can buy a group of these bombing machines capable of carrying a 2,000-

• pound bomb, and stationed at Long Island, one group of bombing machines could protect the Atlantic coast, one group could apply to any of those places in and around New York.

Mr. Sisson. What would that group cost?

Maj. BANE. That group would cost less than \$10,000,000.

Mr. Sisson. In other words, you would get the same amount of protection, and perhaps more protection, for \$10,000,000 than you would get for \$40,000,000 that you would pay for a battleship?

Maj. BANE. I think so; just because of the wonderful range.

Mr. Sisson. And added to that protection you would have an offensive arm that could cover a territory from, say, Washington to Boston?

Maj. BANE. Yes, sir; certainly.

Mr. Sisson. Would you say 350 miles?

Maj. BANE. Yes, sir; approximately.

Mr. Sisson. In other words, you would have protection of 350 miles of coast for an estimated cost of \$10,000,000, and it would take a great many battleships to successfully protect that amount of coast?

Maj. BANE. Yes, sir; and the battleship is at the mercy of your attacking force.

Mr. Sisson. In addition to the helplessness of the battleship, in the event you develop the Air Service as we feel now it can be developed—added to that helplessness of the battleship under this development you would have the added protection of 350 miles of coast?

Maj. BANE. Yes, sir; due to their great range of action.

Mr. Sisson. Which could not be protected except by many more battleships?

Maj. BANE. Yes; and at a very much greater cost of maintenance and operation.

Mr. Sisson. In addition to that, a battleship is also rather helpless unless it has some auxiliaries around it, so that \$40,000,000 does not include the total cost of the battleship, because you would have to add a great many more millions for auxiliary craft?

Maj. BANE. I think it could be covered by stating that a well developed Air Service could protect the coast at much less expense than is now the cost of the Navy.

Mr. Cramton. You maintain that control of the air by us would protect us from invasion from overseas, regardless of who controlled the sea?

Maj. BANE. Yes, sir; whatever country comes here with a naval force will have its air force with the naval force, and if we can stop the air force we can stop the navy.

EFFECT ON SIZE OF THE ARMY OF HAVING CONTROL OF THE AIR.

Mr. Cramton. What effect would it have on the size of a standing army that we would require if we had control of the air; is there any relation there at all? That is to say, the maintenance of a standing army is in part based upon the need of having a force ready to repel invasion?

Maj. BANE. Yes, sir.

Mr. CRAMTON. Before we would have time to organize a citizen army; and if control of the air would enable us to repel invasion, regardless of who had control of the sea, does that, to some extent, lessen the need?

Maj. BANE. I think it would very materially reduce the standing army. Take, for instance, the situation on our southern and northern borders. We could get there in a few hours. Take such a ship as this attack ship, we could certainly prevent forces from concentrating on the border until the army could get there.

Mr. CRAMTON. Then what about the possibility of our acquiring control of the air?

Maj. BANE. That is what we should do first, by all means.

Mr. CRAMTON. Is it a possibility?

Maj. BANE. It is possible, if you gentlemen will give us money to get started; it is possible, absolutely.

Mr. CRAMTON. And money to keep you going?

COST OF SECURING CONTROL OF THE AIR.

Maj. BANE. Yes, sir; but the whole cost will be much less than the present cost for the military defense of this country. And if it is properly proportioned, is it not reasonable to presume that the air, covering every place, is the place to look for an attack?

Mr. CRAMTON. Suppose that the attacking fleet had, as several of its units, several carrier ships prepared to let loose a great number of aircraft and contest the air with us?

Maj. BANE. That is what we can expect, and that is the reason we have got to be able to meet them. If we do not have control of the air, our Army and Navy are helpless, and not only the Army and Navy but the air force.

Mr. CRAMTON. So you face, in the question of controlling the air in an art as undeveloped as aviation, this alternative that, on the one hand, you are simply conducting experiments and developing a type. In the event of an emergency you require six months to get into production, which would be like organizing a citizen army; it would be too late to meet the invasion. And, on the other hand, if you go into production in quantity sufficient to maintain supremacy of the air, you are constantly manufacturing an immense number of aircraft that speedily become obsolete, and so the expense of air supremacy would be more than the country would want to stand.

Maj. BANE. No, sir; I do not think that is true, answering the last part of your question, that the ship would become so immediately obsolete. It is safe to assume that if we go into production in the event of war, that we will go into production with the very best we can get, and that will be useful until it wears out.

Mr. CRAMTON. But if you go into production when the emergency comes, then you are six months getting into production and at the best you would be a little late.

Maj. BANE. That is correct; but that is necessary as long as you insist that the Navy is the first line of defense, which it is not. The Navy now is, because they have their ships, but when you admit that the air is your first line of defense then you are going to provide for these aircraft.

Mr. CRAMTON. Suppose, then, instead of experimenting and developing a type, do you maintain that we have reached the point where we could safely, to some extent, go into production and have our air fleet ready for the possible emergency?

Maj. BANE. Absolutely; I feel we should.

Mr. CRAMTON. What sort of an annual budget would it require for the Air Service if that policy were carried out?

Maj. BANE. That policy should be carried out, and you could cut your other appropriations; but I have not any figures at hand. You should have a budget covering five years to do this thing right, and \$100,000,000 a year ought to be enough for production. That is in addition to the funds that are required to run the Air Service. If it takes \$30,000,000 to run the Air Service, it would take about \$130,000,000 a year for five years, and that would give us a start.

Mr. CRAMTON. You think that would give us practically air supremacy?

Maj. BANE. Of course, I am simply speaking snap judgment now.

Col. FULLER. I can give you some approximate figures on that. Of course, it is dependent upon reduced costs with increased facilities and in building up an industry. These costs are \$450,000,000 for initial equipment of airplanes and accessories and \$70,000,000 replacement per year.

Mr. CRAMTON. Has the War Department or any other authority outside of the Air Service reached the point where they would admit that we might cut off a proportionate amount from our fleet or from our Standing Army in the event that we did build the Air Service rapidly?

Col. FULLER. Answering that question, this program I referred to is an approved policy of the War Department.

Mr. CRAMTON. I understand that; but I note that you can get approval for any large expenditure which may be a very desirable expenditure, but when you endeavor to get a little assistance as to where other expenditures can be cut off to make that expenditure possible we find more difficulty. I understand the General Staff approved this fundamental proposition of four or five hundred million dollars for the Air Service, but they have not yet joined with that a provision that other appropriations for the Army or for the Navy could be reduced in the event that that were given.

Col. FULLER. I am not informed in that respect.

Maj. BANE. I do not think you will ever get the Army or Navy to adopt that.

DEVELOPMENT OF ALL-METAL PLANES.

Mr. CRAMTON. What do you think of the possibility of our competing with Germany in production of all-metal machines?

Maj. BANE. There is no difficulty whatever about that, in connection with competition with Germany. They are building all-metal machines in an experimental way. Germany is building all-metal machines. It can be done in this country as well as in Germany. The only thing is that the Germans started ahead of us.

Mr. CRAMTON. We have caught up with them?

Maj. BANE. I would say we have, yes, sir; experimentally. We have not produced any yet.

Mr. CRAMPTON. Our cost of production, I suppose is less than theirs?

Maj. BANE. Our means of production are quite different. We do everything by machinery, and they do it by hand. The Fokker machines were welded by women. Women did all the welding on those machines. We make everything in this country by machinery.

Mr. ANTHONY. Have you any all-metal machines under contract now?

Maj. BANE. Yes, sir.

Mr. ANTHONY. How many, what proportion?

Maj. BANE. Everything that we are ordering in an experimental line.

Mr. ANTHONY. All these types of machines will be all-metal?

Maj. BANE. Yes, sir; the basic part of the machine is metal.

EFFECT ON EXPENDITURES FOR OTHER MILITARY ARMS BY DEVELOPMENT
OF AIR SERVICE.

Mr. Sisson. In maintaining an Army, we maintain it for two purposes, first for defense. For defensive purposes, where we are being attacked, it is easy to conceive how, if we can accomplish all we think we can accomplish in the air, we can justify a very marked reduction in the Army for defensive purposes.

But we must also maintain an establishment with the idea that we may have an offensive war. Uncle Sam has always had offensive wars. He never has fought a defensive war. He always has jumped on the other fellow; nobody has ever made war on us, but we have always gotten there first.

Maj. BANE. Is not the Air Service essentially an offensive arm?

Mr. Sisson. That is what I am coming to now. How could the air in any way reduce the expense of preparedness in the event of the possible contingency of having to fight an offensive war? The defensive end of it, if our theories are correct as to what the air can accomplish, can be made a very economical branch of the service by developing it, and we can save many million dollars. But if we maintain an establishment for the purpose of fighting an offensive war, of course, the air will be of great service. How can we reduce the military expenditures, taking into consideration the fact that we would have to maintain some sort of an establishment of an extensive character to fight an offensive war.

Maj. BANE. So far as the Navy is concerned, if you had an offensive war and operate overseas, you should provide, in the place of battleships, carriers to take the airplanes where they can operate and attack an enemy's shore. To make that attack you have got to have bombardment airplanes, and have them covered always by the pursuit airplanes to fight off the enemy's airplanes.

Mr. Sisson. All of our theories, of course, must be experimented with. We can not always tell whether the theory is going to work out exactly in practice. Take those charged with the defense of the country. We would have difficulty, as suggested by Mr. Crampton, in getting any of these economies reflected in the other branches of the service unless we had absolute certainty that development of the air would accomplish as much, and very much more, economically, than

by following the old methods. That is the problem that confronts this committee.

Maj. BANE. Right on that point, I do not think anyone in the Air Service would maintain that the development of the Air Service would do away with the need of the Army.

Mr. Sisson. I do not mean that. But I am speaking of a corresponding reduction which would be reflected in the expenditures of the Army.

Maj. BANE. What you are interested in is the expenditures during time of peace.

Mr. Sisson. In time of peace, but keeping constantly in mind that there must be some sort of view constantly of war. You have to keep in mind a possible contingency.

Maj. BANE. If you decide to attack somebody overseas somewhere, you have an army to cover the operations on land and they have to land on the shore, and you have to have an army of sufficient size to make an attack. If you decide to attack a place like that you can go ahead and raise that army and the Air Service is there as the first line of offense, or the outriders, to make the first attack.

Mr. Sisson. The theory has been advanced before this committee that the nations of the earth still find that the best weapon, offensive and defensive, is the infantry—the man power—and the man power is always the expensive end of an army.

Maj. BANE. But it has been demonstrated that you can raise those after you have gotten into hostilities very quickly, and if the Air Service can operate until you can bring the army along you will be all right.

Mr. ANTHONY. Is that all, Col. Bane, in regard to your branch of the service?

Maj. BANE. Yes, sir; except the matter of the details.

Mr. ANTHONY. You will put that in the record?

Maj. BANE. I will put that in the record.

Mr. ANTHONY. Not in minor detail, but so far as it is necessary for the committee to follow.

Maj. BANE. Yes, sir.

Mr. ANTHONY. All right. We are much obliged.

(The statement referred to is as follows:)

AIR SERVICE ESTIMATES FOR FISCAL YEAR 1922.

TRAVELING EXPENSES FOR CIVILIAN EMPLOYEES.

[Item No. 204.401.]

Submitted by cost department:

Travel in connection with inspection of wood-shop equipment, lumber, etc.	\$200
Travel in connection with flight tests, aerial photography, races, delivering airplanes and salvaging wrecked planes.....	2,300
Travel in connection with technical drafting at outside institutions.....	000
Travel in connection with flight tests, technical investigations, inspection of work under construction.....	3,000
Travel in connection with inspection with work under construction, investigations on power-plant designs, installation, and operations. . . .	1,500
Travel in connection with development of various propellers.....	1,500
Travel in connection with development and investigation of armament for airplanes.....	000
Travel in connection with development and investigation of all kinds of airplane equipment.....	2,700

Travel in connection with research work, testing and investigation on all kinds of material used in the construction of airplanes-----	2,400
Travel in connection with development and tests of aerial torpedoes----	4,500
Travel in connection with liaison work between McCook Field and outside concerns-----	2,700
Travel in connection with obtaining data for engineering records-----	300
Travel in connection with obtaining technical data for engineering division-----	300
Travel in connection with development of photographs-----	600
Travel in connection with locating materials in Government warehouses suitable for use at McCook Field-----	
Travel in connection with auditing contracts and investigations of cost methods in use at other Government depots-----	300
Travel in connection with securing technical employees for McCook Field and other civil-service activities-----	600
Travel in connection with administration, lectures, attending technical meetings, conferences in Washington, etc-----	2,100
Travel in connection with investigations on contracts-----	1,500
Total -----	30,000

PAY CONSULTING ENGINEERS.

[Item 0205.401.]

Estimate of funds required to cover salaries of consulting engineers for fiscal year 1922: Total required, \$4,500.

TRAVELING EXPENSES OF CONSULTING ENGINEERS.

[Item 0206.401.]

Estimate of funds required to cover traveling and other necessary expenses of consulting engineers of the Air Service for the fiscal year 1922: Total required, \$500.

NOTE.—It is estimated the amount expended in fiscal year 1920, \$999.88.

MAINTENANCE AND REPAIR OF AIRPLANES AND SPARE PARTS.

[Item No. 0301.401.]

Submitted by Engineering Division.

Appropriation asked upon a basis of maintaining 150 airplanes in commission: Total, \$250,000.

MAINTENANCE AND REPAIR OF ENGINES AND THEIR SPARE PARTS.

[Item No. 0305.401.]

Submitted by Engineering Division.

Appropriation asked upon a basis of maintaining 600 airplane engines of approximately 40 different and distinct types: \$100,000.

MAINTENANCE AND REPAIR OF MACHINES, GENERAL EQUIPMENT, AND TOOLS.

[Item No. 0308.401.]

Submitted by Engineering Division.

Based on expenditures during the past fiscal year for replacements due to breakage or normal wear and tear, and maintenance of accessories: Total, \$80,000.

MAINTENANCE AND REPAIR OF RADIO EQUIPMENT AND SUPPLIES OF AIRCRAFT.

[Item No. 0312.401.]

Submitted by Engineering Division.

For actual maintenance of radio equipment, based on appropriation of past fiscal year: Total, \$2,000.

MAINTENANCE AND REPAIR OF EQUIPMENT, MATERIAL, AND INSTRUMENTS FOR USE AT AIR SERVICE SCHOOLS.

[Item No. 0306.501.]

Air Service Engineering School, McCook Field, Dayton, Ohio: Maintenance (installation of machinery, machinery repairs, general upkeep, and calibration and repair of instruments), \$5,000.

PURCHASE OF EQUIPMENT, MATERIAL, AND INSTRUMENTS FOR USE AT AIR SERVICE SCHOOLS (INSTRUCTION).

[Item No. 0701.401.]

Submitted by Engineering Division.

For the purchase of equipment, material, and instruments for the use of the Air Service Engineering School, Dayton, Ohio, \$25,000.

PURCHASE OF TEXTBOOKS, BOOKS OF REFERENCE, AND PUBLICATIONS.

[Item No. 0706.401.]

Submitted by Engineering Division. technical data section.

Books:

Aeronautics	\$1,000
Chemistry	400
Chemic technology	800
Electrical engineering	400
Factory management	300
Mathematics	400
Mechanics	900
Physics	300
Miscellaneous	250
	<hr/>
	4,750
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Magazines:

American	175
Foreign	75
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	250

MAINTENANCE AND REPAIR OF BUILDINGS AND GROUNDS AT AIR SERVICE STATION.

[Item No. 0304.401.]

Submitted by engineering division.

Based on expenditures of past fiscal year and decreased to allow for the fact that the division will probably be moved following the fiscal year 1922. Consequently maintenance work that is not absolutely essential will not be touched. Total, \$130,000.

WATER.

[Item No. 0502.401.]

Submitted by engineering division.

Based on expenditures of past year, and increased to allow for an increase of rates: Total, \$4,000.

LIGHT AND POWER.

[Item No. 0503.401.]

Submitted by engineering division.

Based on expenditures of past year, and increased to allow for increased rates and an expected increase in number of metal-working machines in construction of metal airplanes: Total, \$38,000.

EXPERIMENTATION AND RESEARCH ON AIRPLANES AND ACCESSORIES.

[Item No. 0601.401.]

Submitted by engineering division.

For experimental aerodynamics, including wind-tunnel tests on models; static testing of airplanes built by the division or outside contractors, \$100,000

For improvement of existing types of airplane, including changes of design and changes in construction. For example, it is estimated that improvements on the new empire art metal corps observation biplane will cost approximately \$50,000 during the fiscal year 1921-1922, \$640,000.

Experimentation and research on special types of armament for aircraft, itemized as follows:

Development of cannon mounts and sights-----	\$52, 000
Development of bomb racks-----	31, 000
Development of synchronizing gears-----	31, 000
Development of fixed and flexible machine-gun mounts-----	31, 000
Development of machine-gun sights-----	25, 000
Development of armament installations-----	30. 000
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	200, 000

Experimentation and research on miscellaneous equipment for airplanes:

Oxygen apparatus-----	17, 000
Accessories—fire prevention, etc-----	55, 000
Electrical equipment-----	24, 000
Field equipment, hangars, machine-shop trucks ,lighting, etc-----	68, 000
Clothing-----	16, 000
Parachutes-----	70, 000
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	250, 000

Experimentation and research on airplane material; wood fabric duralumin, steel, etc., to produce best possible material for aircraft construction:

Chemical laboratory-----	54, 000
Fibric laboratory-----	12, 000
Wood laboratory-----	24, 000
Physical testing laboratory-----	75, 000
Metallurgical laboratory-----	54, 000
Miscellaneous (camouflage tests, etc.)-----	31, 000
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	250, 000
Grand total-----	1, 440, 000

ALLOTMENT TO FOREST PRODUCTS LABORATORY.

[Item No. 601.]

Submitted by engineering division.
To cover work done for engineering division by forest products laboratory on physical tests of woods, plywoods, and glues, for the further improvement of such material for use in airplane construction: Total, \$100,000.

EXPERIMENTATION AND RESEARCH ON ENGINES AND ACCESSORIES.

[Item No. 603.401.]

Submitted by engineering division.
Appropriation asked for development of new engines and improvement of existing engines as follows:

I. Development of new engines (water cooled)-----	\$35, 000
II. Development of new engines (air cooled)-----	30, 000
III. Development of existing engines now in service (water cooled) --	30, 000
IV. Development of existing engines now in service (air cooled)-----	52, 000
V. Development of superchargers-----	48, 000
VI. Development of multi-engine transmissions-----	33, 000
VII. Development of engine accessories-----	8, 000
VIII. Research of-----	30, 000
IX. Cooling systems-----	10, 000
X. Engine installation-----	24, 000
	<hr/>
	300, 000

NOTE.—It should be noted that the above covers money to be expended for work to be done mostly at McCook Field while the money expended on similar projects under item No. 0105.401 covers work to be done outside of McCook Field.

PURCHASE AND PRODUCTION OF AIRPLANES AND THEIR SPARE PARTS.

[Item No. 0102.401.]

Submitted by Engineering Division.

Appropriation asked for purchase and production of experimental airplanes, as follows:

Service airplanes:

1. Single-seater pursuit, water-cooled engine, two types, three samples each (one all steel, the other duralumin or other alloy) -----	\$170, 000
2. Single-seater pursuit for night work, one type, three samples (all metal) -----	85, 000
3. Single-seater pursuit, air-cooled engine, two types, three samples each (one all steel, the other duralumin or other alloy) -----	170, 000
4. Single-seater pursuit, armored, one type, three samples -----	100, 000
5. Two-seater pursuit, all steel, one type, three samples -----	100, 000
6. Three-seater for ground attack (armored), one type, three samples -----	125, 000
7. Two-seater infantry liaison (armored), one type, three samples -----	120, 000
9. Three-seater coast artillery observation (all metal or wood), one type, three samples -----	125, 000
10. Two-seater corps observation, two types, three samples each (one all steel, the other duralumin) -----	200, 000
11. Day bombardment, one type, three samples (all metal) -----	100, 000
12. Short distance, night bombardment, one type, three samples (all metal or wood) -----	220, 000
13. Long distance, night bombardment, one type, four samples (all metal or wood) -----	580, 000

Training airplanes:

14. Training-air cooled engine, three types, three samples each (all metal) -----	285, 000
15. Training-water cooled engine, three types, three samples each -----	285, 000
	<u>2, 665, 000</u>

For propeller development and production:

Variable pitch propellers -----	15, 000
Metal propellers -----	16, 000
Micarta propellers -----	45, 000
Thrust and torque meter development -----	9, 000
Special developments and tests -----	30, 000
	<u>115, 000</u>

For development of aerial torpedo:

Development of air-cooled engine suitable for aerial torpedoes ..	20, 000
Development of radio control -----	12, 000
Purchase of aerial torpedoes on contract -----	60, 000
Testing of aerial torpedoes -----	28, 000
	<u>120, 000</u>

Grand total ----- 2, 800, 000

ENGINES AND THEIR SPARE PARTS—PURCHASE AND PRODUCTION OF.

[Item No. 0103.401.]

Submitted by Engineering Division.

Appropriation asked for design, construction, and development of engines, their installations, and accessories:

I. Development of new engines (water cooled) -----	\$285, 000
II. Development of new engines (air cooled) -----	270, 000

(NOTE.—The above estimates are based on the recommendations of the technical committee of the Joint Army and Navy Aeronautics Board as to sizes and type of engines to be developed for use in the Army and Naval Air Services.)

III. Development of existing engines now in service (water cooled)	\$170,000
IV. Development of existing engines now in service (air cooled)---	195,000
V. Development of superchargers-----	200,000
VI. Development of multilengined transmissions-----	200,000
VII. Development of engine accessories-----	25,000
VIII. Development of cooling systems-----	13,500
IX. Development of engine installations-----	25,000
X. Developmient of carburetion systems to permit present and future engines to burn lower grade fuels-----	28,000
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	1,371,500

NOTE.—It should be noted that the above covers money to be expended for contracts, the work to be done mostly outside of McCook Field, while the money expended on similar projects under Item No. 0603.401 covers work to be done at McCook Field.)

PURCHASE AND PRODUCTION OF INSTRUMENTS AND ACCESSORIES FOR AIRCRAFT AND ENGINES.

[Item No. 0107.401.]

Submitted by Engineering Division.

For regular airplane instruments and accessories, such as tachometers, thermometers, altimeters, barographs, air-speed indicators, etc-----	\$25,000
For special instruments for navigation of aircraft-----	25,000
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Total-----	50,000

PURCHASE AND PRODUCTION OF RADIO EQUIPMENT AND SUPPLIES.

[Item No. 0113.401.]

Submitted by Engineering Division.

Appropriation asked for the purchase of radio equipment and accessories necessary in experimentation with and the improvement of such apparatus;
Total, \$30,000.

PURCHASE AND PRODUCTION OF MACHINES, GENERAL EQUIPMENT, AND TOOLS.

[Item No. 0705.401.]

Submitted by Engineering Division.

Hydraulic press, change heat treat ovens from gas to oil burning, riveting machines, doweling machines, and other machines.

For the purchase of new machine tools, such as hydraulic press, oil-burning heat treatment furnace, riveting machine, doweling machine, and others: Total, \$40,000.

PURCHASE AND MANUFACTURE OF PHOTOGRAPHIC EQUIPMENT AND SUPPLIES FOR USE IN AERIAL OBSERVATIONS.

[Item No. 0901.401.]

Submitted by Engineering Division, technical data section (Lieut. Patterson).

Still photography:

Negatives-----	\$4,200
Slides-----	5,300
Prints-----	22,600
Copying-----	700
Photostats-----	8,200
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	41,000

Motion pictures:

Negative film-----	4,500
Positive film-----	10,500
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	15,000

Total-----	56,000
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SUPPLIES AND SERVICE IN CONNECTION WITH SALVAGE OF WRECKED AIRPLANES.

[Item No. 0219.401.]

Submitted by Engineering Division.

Based on expenditures during past fiscal year and increased flying activities during the period for which the appropriation is asked: Total, \$8,000.

OFFICE EQUIPMENT, PURCHASE AND REPAIR OF.

[Item No. 0209.401.]

Submitted by Engineering Division.

Based on an increased personnel and increased activity over that of the past fiscal year: Total, \$20,000.

MISCELLANEOUS SERVICES NOT PROPERLY CHARGEABLE TO OTHER ITEMS.

[Item No. 0216.401.]

Submitted by Engineering Division.

Based on an increased activity over that of the past fiscal year: Total, \$50,000.

MISCELLANEOUS SUPPLIES AND EQUIPMENT NOT PROPERLY CHARGEABLE TO OTHER ITEMS.

[Item No. 0218.401.]

Submitted by Engineering Division.

Photographic equipment and supplies other than aerial photography:

Multispeed camera and accessories.....	\$16,000
Repairing old equipment and purchase of new cameras, lenses, tripods, etc.....	1,500
Laboratory equipment and supplies:	
Metals branch.....	8,750
Physical testing.....	3,500
Fabric branch.....	3,000
Chemistry branch.....	2,500
Camouflage branch.....	500
Wood branch.....	250
Total.....	36,000

PURCHASE OF EXPERIMENTAL AIRPLANES AND ENGINES.

Maj. BANE. There are some large items, one of \$4,000,000.

Mr. ANTHONY. For what?

Maj. BANE. Purchase of airplanes and engines.

Mr. ANTHONY. In your appropriation?

Maj. BANE. Yes, sir; part of that \$10,000,000. Four million dollars is to be for the purchase of airplanes and engines.

Mr. ANTHONY. Absolutely experimental?

Maj. BANE. Absolutely experimental.

Mr. ANTHONY. And not to be used in production?

Maj. BANE. It has nothing to do with production; just the development of airplanes.

Mr. ANTHONY. How many experimental planes and engines did you purchase during the present fiscal year, or will you purchase out of the present appropriation?

Maj. BANE. About 12 types; that is two or three airplanes of each.

Mr. ANTHONY. How much money will you use for that purpose this year?

Maj. BANE. Close to \$2,000,000—\$1,800,000.

Mr. ANTHONY. Do you think there is necessity for expending the total amount?

Maj. BANE. Yes, sir. As I said, we want to get all the men in the country scratching their heads and working to develop better types.

Mr. ANTHONY. I do not think it is going to be possible to double the appropriation.

Gen. Menoher, have you some one that can give us information in regard to the appropriation you are asking for the development of helium?

Gen. MENOHER. Yes, sir. Maj. Van Nostrand.

STATEMENT OF MAJ. P. E. VAN NOSTRAND, ACTING CHIEF OF THE BALLOON AND AIRSHIP DIVISION, AND MEMBER OF THE ARMY AND NAVY HELIUM BOARD.

DEVELOPMENT OF HELIUM.

Mr. ANTHONY. You are asking for \$1,375,250 for helium exploration, conservation, and production. What success has attached to the efforts that have so far been made toward the development of helium?

Maj. VAN NOSTRAND. That is a relative question, Mr. Chairman. We have demonstrated by large scale laboratory experiments that helium can be produced by two different methods, both fundamentally the same, but somewhat different in application, both a liquefaction process.

Mr. ANTHONY. We have already expended in connection with that several millions of dollars, have we not, for the development and manufacture of helium gas?

Maj. VAN NOSTRAND. Yes.

Mr. ANTHONY. Helium is a non-inflammable gas which is used for the lighter than air ships?

Maj. VAN NOSTRAND. That is correct.

Mr. ANTHONY. Have you yet succeeded in producing helium gas in commercial methods, you might say, at a cost which makes it practical and reasonable for use in the Air Service?

Maj. VAN NOSTRAND. We have demonstrated that it can be produced in commercial quantities at a price which is favorable. We have not produced it in commercial quantities, however, the reason being that we have been delayed in getting delivery on parts that were necessary for the building of large plants which would make its production commercially possible.

Mr. ANTHONY. You have a plant?

Maj. VAN NOSTRAND. One at Petrolia and one at Fort Worth, both in Texas.

Mr. ANTHONY. Have you turned out enough helium gas in appreciable quantities so far that you can fill an airship?

Maj. VAN NOSTRAND. We have enough to fill a small one, but not enough to fill a ship with which we would go into action.

Mr. ANTHONY. So that with the expenditure of all this money it is still in an experimental condition?

Maj. VAN NOSTRAND. So far as commercial production is concerned the development is experimental, except that we have production plants on a scale which can produce helium.

Mr. ANTHONY. So far as you have gone, what will it cost a foot for this gas to put in an airship?

Maj. VAN NOSTRAND. The gas that we did produce cost about \$50 a thousand.

Mr. ANTHONY. How many thousand does it take to fill one of these large airships of the type of R-34?

Maj. VAN NOSTRAND. About 2,000,000 cubic feet.

Mr. ANTHONY. How much would that gas cost that it would take to fill the large ships that we are just purchasing from the British?

Maj. VAN NOSTRAND. It would cost about \$100,000.

Mr. ANTHONY. Now, last year we had information, if I remember correctly, that showed that it would cost almost as much to fill a ship with helium gas at the rate of progress that we were making as the original ship would cost. You have gotten beyond that stage, have you?

Maj. VAN NOSTRAND. Yes, sir; and our present indications are that that price of \$50 will be cut to \$20 or less.

Mr. ANTHONY. But you have not succeeded in making enough helium gas to fill a large airship?

Maj. VAN NOSTRAND. No, sir; there has been no immediate demand for that helium. While there was a demand and a very urgent one to keep down the price of production, our efforts have been to build plants on a large enough scale to keep that production cost down, and there would not be any excuse for making high-priced helium when there was a low-priced gas, hydrogen, available, which was all right for peace-time operations.

Mr. Sisson. In other words, would you have any difficulty in getting private concerns who make gas to manufacture this helium?

Maj. VAN NOSTRAND. Not if we would let them do what they want to do.

Mr. Sisson. I mean for the Army in time of peace?

Maj. VAN NOSTRAND. They do not want to use it in time of peace. As far as we know there is a limited supply in the world, and that is practically controlled by the United States.

PURCHASE OF ADDITIONAL LAND AND PLANTS FOR DEVELOPMENT OF HELIUM.

Mr. ANTHONY. Major, you are asking for \$575,000 in the aggregate for the purchase of land for helium, and for the lease of land for the development of helium. You are asking for \$817,000 for the construction, maintenance, equipment, and operation of plants. Now, you have one plant already completely equipped, have you not, down at Petrolia?

Maj. VAN NOSTRAND. Yes, sir.

Mr. ANTHONY. What is the necessity for the equipment of different plants?

Maj. VAN NOSTRAND. The plant at Petrolia is for the development of the helium in the Petrolia field, and the necessity of utilizing all of this gas, getting it wherever we have natural gas, which contains helium, requires that we have plants at other fields.

Mr. ANTHONY. Well, you have that Petrolia plant located in one of the biggest natural gas fields in the country, and do you mean to

say that in order to get a sufficient supply you will have to go into other fields?

Maj. VAN NOSTRAND. Yes, sir. The plant at Petrolia is located in a field which will be exhausted before a great many years. They are using that gas at the rate of 10,000,000 or more feet per day.

Mr. ANTHONY. If you are to keep up at this rate of expenditure, it will mean that you will have to build gas plants at every gas field in the country.

Maj. VAN NOSTRAND. There are a few other fields where it would be worth while constructing a plant.

Mr. ANTHONY. Where do you propose to spend this money?

Maj. VAN NOSTRAND. I would like to devote this money that you have in mind, \$500,000, to the leasing of land.

SCARCITY AND COST OF HELIUM.

(See p. 297.)

Mr. ANTHONY. You are not using helium in any of your ships now?

Maj. VAN NOSTRAND. No, sir; and we do not intend to use it in time of peace. It is too costly, not in terms of production, but it is so scarce that when the supply is gone we can not get any more. Hydrogen we can get out of the air and water. We do not have to conserve that because we can get more.

Mr. ANTHONY. It is an expensive luxury in time of peace.

Maj. VAN NOSTRAND. It is prohibitive in time of peace because of the small supply.

Mr. Sisson. Can you produce this gas and keep it in containers for an indefinite time?

Maj. VAN NOSTRAND. Our experiments show so far that it can be kept for an indefinite time.

Mr. Sisson. You do not have any deterioration, I suppose, as it is an element?

Maj. VAN NOSTRAND. No, sir; from the fact that it does not combine with any other elements there would be no danger. The Bureau of Mines is conducting experiments to determine that. There are several methods by which it can be done.

Mr. Sisson. I suppose if you have one of your balloons, or whatever you call it, filled up with this substance, and it gets to be an old machine, you can transfer that to containers and save it for another balloon?

Maj. VAN NOSTRAND. Yes, sir; that is our policy.

Mr. Sisson. In other words, after you shall have gotten sufficient quantity to fill all of your craft that you want to put it in, unless the craft is destroyed in war, you would be able to keep that an indefinite time?

Maj. VAN NOSTRAND. It is our intention to use this over and over again, so that we will conserve the supply once we get it. In fact, our program also contemplates, and we are now carrying on experiments, to repurify and wash this gas which has been in the handling and in operation in the ships contaminated with other elements, mixed with oxygen and nitrogen from the air. We will take out the gas and wash it.

Mr. Sisson. That is a mixture and not a union?

Maj. VAN NOSTRAND. A mixture and not a union. We will wash it and put it back in.

PROCESS OF SECURING HELIUM.

Mr. Sisson. If there is no secret about it, what is the process of getting it?

Maj. VAN NOSTRAND. How do we get it or purify it?

Mr. Sisson. How do you get it originally?

Maj. VAN NOSTRAND. Helium has the lowest liquefaction point of any gas known. We pass the natural gas through different stills, retorts, and interchangers, gradually cooling it by compression and expansion until all the other constituent gasses of the natural gas which we started with have been liquefied and drawn off, leaving the helium at about 1 degree above absolute zero as a gas. When the helium is drawn off then the other gases are raised to their proper temperatures and put back into the mains and used as commercial gas.

Mr. ANTHONY. It is perfectly clear in my mind that when this helium proposition was brought to the attention of the committee of Congress—I think it was by the Signal Corps—it was represented that it would be a perfectly simple matter to develop the production of helium and obtain it in large quantities, and it has been demonstrated that it is an exceedingly difficult matter to get hold of, even in sufficient quantities to fill one ship with. So that, in view of that fact, do you think it is advisable to go ahead and spend these large sums of money? It will practically mean \$3,000,000 the next year. You are asking for \$1,375,000, and if the Navy appropriates a like amount, as it has always done, do you think it is advisable to go ahead with that vast expenditure?

Gen. MENOHER. I think so; yes, sir. This is a thing of which we can have a monopoly. If we do not develop it it will be wasted or be shipped out of the country. There has been an effort made by a company to get control of helium in this country with authority to ship out of the country.

Mr. Sisson. That, of course, will be sold to other nations only.

Gen. MENOHER. For use in time of war.

Mr. ANTHONY. We put a million dollars into Petrolia, but that was a failure.

Gen. MENOHER. Yes.

Mr. ANTHONY. Now, is it proposed to do it in a new field?

Maj. VAN NOSTRAND. It is not in a field that is to be developed now. There is no idea of exploiting it commercially, whereas in the other place it was. If we put in a million dollars we can control it and it will not be exploited at all. We can bottle up the wells and absolutely control the field.

Mr. ANTHONY. Helium is very light?

Maj. VAN NOSTRAND. It is the most buoyant noninflammable gas. It has 82 per cent the lifting power of hydrogen.

SUPPLY OF HELIUM ON HAND.

Mr. ANTHONY. How much of this gas have you on hand in containers?

Maj. VAN NOSTRAND. 175,000 cubic feet. That was produced experimentally, the result of laboratory experiments.

Mr. ANTHONY. What has become of the gas that you accumulated during the war? How many ships would that fill?

Maj. VAN NOSTRAND. That is it.

Mr. ANTHONY. How many ships would that fill?

Maj. VAN NOSTRAND. About five.

Mr. ANTHONY. Five observation balloons?

Maj. VAN NOSTRAND. Yes, sir.

FORT WORTH PLANT.

Col. FULLER. Mr. Anthony, there is one point there that I think has not been cleared up, and that is the preparation of the Fort Worth production plant for production. Owing primarily to the steel strike and other labor troubles it was impossible to get the material required for that plant, and there was no effort made to hurry the thing along at a greater expense, and that is the only reason why the Fort Worth plant is not now working as a production plant.

Mr. ANTHONY. The Fort Worth plant is partially completed, then?

Col. FULLER. Yes; it is working now or about ready to start in on the production program now. The last I heard a couple of weeks ago we expected——

Maj. VAN NOSTRAND. To be operating by the first of the year, Colonel. It has all been contingent upon the delivery of material.

Col. FULLER. That program is not a failure, not by any means. We have demonstrated these propositions in a safe, conservative way, and we simply have been avoiding excessive expense. In order to rush that production plant it would have cost a great deal more to have brought it through at an earlier date.

SCARCITY AND COST OF HELIUM.

(See p. 295.)

Mr. ANTHONY. Upon what figure do you base your ability to produce this gas at a cost of \$50 a thousand feet?

Maj. VAN NOSTRAND. That is what it cost to produce it in a smaller plant than the present production plant.

Mr. ANTHONY. Is this based on the cost, all the overhead invested so far?

Maj. VAN NOSTRAND. I do not believe that that includes amortization of the plant. Do you know, Colonel?

Col. FULLER. It covers operating expenses only.

Mr. ANTHONY. You have to have an enormous production of gas in order to get a low cost?

Col. FULLER. The production of 30,000 cubic feet of helium per day is the basis for the estimated cost of \$50 per thousand for operating expenses.

Mr. ANTHONY. I am afraid your figures will hardly bear that out. Is there anything more you would like to state about the helium proposition?

Maj. VAN NOSTRAND. I would like to emphasize what Col. Fuller said—that we had not failed in producing it. We have simply de-

layed, because we wanted to cut the cost, and we have no use for it. Helium is a war measure. The helium is there. We know that we can produce it.

Mr. ANTHONY. So your whole proposition is really a conservation of the present helium supplies that are in sight?

Maj. VAN NOSTRAND. Yes, sir; to make them available for use. This includes storage and conservation of the fields.

TOTAL SUPPLY OF HELIUM.

Mr. ANTHONY. Can you give us some estimate of what the total supply in sight is?

Maj. VAN NOSTRAND. There is something over 75,000,000 cubic feet of gas—that is, natural gas—available from which to have helium extracted.

Mr. ANTHONY. And on that you expect to get seven-eighths of 1 per cent?

Maj. VAN NOSTRAND. Which will give us about 750,000,000 cubic feet of helium.

Mr. ANTHONY. What else do you want to take up, General?

Col. FULLER. Coming back to that item of training and operation, Col. Fechet covers \$2,220,000. In the \$9,000,000, the supply group, including Col. Bane, covers \$7,200,000, and \$2,200,000 is covered by Col. Fechet.

Mr. ANTHONY. That will be for the training of officers and enlisted men in the schools?

Col. FULLER. Yes, sir; in schools and at fields.

Mr. ANTHONY. We would be glad to hear from Col. Fechet.

TRAINING AND OPERATIONS, AIR SERVICE.

STATEMENT OF COL. J. E. FECHET, CHIEF TRAINING AND OPERATIONS SCHOOL.

CIVILIAN EMPLOYEES.

Mr. ANTHONY. How much are you asking for in this bill for training and operations in the Air Service?

Col. FECHET. For civilian employees, \$2,220,770.

Mr. ANTHONY. How much have you expended or will you expend during the present fiscal year for that purpose?

Col. FECHET. About the same amount. We are just asking to carry on the specialists who are necessary for the maintenance of the planes and engines and other activities for which we have not qualified enlisted men.

Mr. ANTHONY. For training purposes?

Col. FECHET. And for the operation of some of our service equipment.

Mr. ANTHONY. As well.

Col. FECHET. Yes, sir.

Mr. ANTHONY. Will you tell us something of the scope of that work, where the training institutions are located, and the number of men required at each?

Col. FECHET. Yes, sir; the total of these men in the training and operations group is 1,495.

Mr. ANTHONY. Civilians?

Col. FECHET. Yes, sir; civilians.

Mr. ANTHONY. What classes of men are they?

Col. FECHET. Aero engineers, blacksmiths, cabinetmakers, expert carpenters, chemists, clerks, draftsmen, electricians, ordinary engineers—that is engineers not embraced in the aero engineers—machinists, mechanics—machinists are men who handle machine tools. Mechanics are men who work on airplanes and aero engines.

Mr. ANTHONY. Why do you have to have engineers and chemists at training camps?

Col. FECHET. The aero engineers are extremely necessary, because they are the only people who are really qualified to pass on the technical line-up of airplanes and engines. The difference, of course, between the handling of an airplane and an automobile consists in the place where you use it. If something goes wrong with the automobile on the road, you are fairly well placed. But if something goes wrong with your equipment while you are in the air, you are in a bad fix. You can not get out and fix it.

Mr. ANTHONY. Has not the airplane reached a stage of perfection so that if anything goes wrong with the plane which is being used for training that the officers in charge can tell what the matter with the plane is and what should be done with it?

Col. FECHET. Yes; to a certain extent, Mr. Anthony, but this trouble develops, I might say, ninety-nine times out of one hundred in the air, and no one knows what the matter is. It does not do any good, because you can not get out and fix it. You have to come down.

Mr. ANTHONY. After the machine comes down, have you not sufficient officers to tell what is the matter with the machine?

Col. FECHET. Yes, sir; but what we want is these experts on the ground to tell what is liable to happen if we go up, because after you come down, unless you have a good landing field, there is nothing left to fix.

Mr. ANTHONY. Are these aero engineers and chemists used for instruction purposes or to care for the problems arising out of the use of the machines?

Col. FECHET. We use them for both. We have a heavy percentage of our civilians at the Air Service mechanics school, at Kelly Field. For instance, in the instructors we have 189 civilians.

Mr. ANTHONY. At Kelly Field?

Col. FECHET. Yes, sir.

Mr. ANTHONY. All civilians?

Col. FECHET. Yes, sir; part of Kelly Field which we used to call Kelly Field No. 1 is the Air Service mechanics school, in which we train as many as possible of the recruits we get as mechanics.

NUMBER OF ENLISTED MEN IN THE AIR SERVICE.

Mr. ANTHONY. How many enlisted men have you in the air forces to-day?

Col. FECHET. About 9,000.

Mr. ANTHONY. How many of those men are in the mechanics' school?

Col. FECHET. I think about five or six hundred.

Mr. ANTHONY. Five or six hundred?

Col. FECHET. Yes, sir.

Mr. ANTHONY. So that you are asking for 189 civilian instructors to train five or six hundred men?

Col. FECHET. These courses average between three and four months. We expect to put every recruit that we get through that school.

Col. FULLER. We have had a thousand there at one time. That is the plan for the fiscal year 1922.

Mr. ANTHONY. Why have you not a larger proportion of the enlisted forces under instruction?

Col. FECHET. The air service has been practically wrecked in the Eighth Corps Area to maintain students at that school in order to improve the efficiency of the enlisted men. We have not the enlisted men.

NUMBER OF SCHOOLS.

Mr. ANTHONY. How many enlisted men's schools have you for training mechanics?

Col. FECHET. Just the one.

Mr. ANTHONY. What other schools are there now in operation besides the one at Kelly Field.

Col. FECHET. That is the only one of its kind in my department.

Mr. ANTHONY. How many in other branches for enlisted men? You have one enlisted men's school?

Col. FULLER. There is a radio school. There will be, speaking of 1922 program, 50 enlisted men maintained there, and there is in the supply group a stockkeepers' school, teaching them what this material is, that is the thousands of parts of material. There will be not over 50 there. In the photographic school at Langley for enlisted men there will be 51. All the rest of these heavier-than-air enlisted men of the air service are to be trained in this school, and the estimates are based upon the proposition of having approximately 1,000 at a time, and feeding them through constantly. And perhaps you will recall, Mr. Chairman, the very extensive discussion last year as to the number of instructors to the number of students, where it was explained that this work is not classroom work. It is work where the instructors work at a bench or machine with a few men around them. Now, during the war we found that four or five men were the best number for an instructor, but we are increasing this number slightly.

Mr. ANTHONY. Does this appropriation also take care of your schools for the instruction of commissioned officers as well?

Col. FECHET. Yes, sir.

Mr. ANTHONY. How many of them are you maintaining?

Col. FULLER. Eleven, all told.

Col. FECHET. Eleven, all told, of various classes. Of course, they are not all in my department.

Mr. ANTHONY. Are those schools schools in the sense that the other branches of the service have schools, or are they just schools for your fliers?

Col. FECHET. We have both kinds. We have a technical school at Langley Field which trains for entrance to Leavenworth for Air

Service officers. Now, our primary training schools where we teach them nothing but the beginning of flying, are maintained at other places.

Mr. ANTHONY. What you call primary training schools are for training. That is the purpose for which the schools are organized, but in addition to that what I want to get at is, have you service schools for the training of commissioned officers?

Col. FECHET. Yes, sir. We have a field officers' school at Langley Field which is for the tactical training of officers.

Col. FULLER. Our bombardment school corresponds to the Artillery schools, the pursuit school corresponds to another arm of the service, and the attack to another, so that really there are combined in the Air Service what corresponds to the special school of three or four arms of the Army combined, each having its specialty, just as the Infantry has, or the Cavalry, or the Artillery.

Mr. ANTHONY. Now, could you put into the record the place where this work is carried on, and what the work is, and what it is costing us?

Col. FULLER. Yes, sir.

(NOTE.—A consolidated statement will be put in the record for all civilian employees.)

Mr. ANTHONY. Out of the appropriation that you are asking for.

Col. FECHET. I have that here now.

Mr. ANTHONY. Did you find that it was necessary to expend that amount of money during the past year to get results?

Col. FECHET. Yes, sir. We find that this work is absolutely necessary to make flying safe and as economical as possible. It is necessary to hire these men, because we can not train enlisted men in the short time we have them. We could not produce enough experts. We take a man in his first year and give him three years' training and he will come out a good man, but he will not stay with us.

Mr. ANTHONY. After three years' training?

Col. FECHET. There are some enlisted men in the Army that are competent to fill these positions, but they are men that have had considerable service in the Army, going into the Air Service in 1916 from other branches, and they are staying with us because of the benefits they expect in their old age due to retired pay. The young men will not stay with us.

Mr. ANTHONY. If it takes three years to train enlisted men, you are in bad shape——

Col. FECHET. We are in bad shape on account of the fact that you can not train a high-grade average man with no previous mechanical training in three years to the point where he is an expert aero mechanic.

Mr. ANTHONY. So far as the one-year enlistments are concerned, so far as the Air Service is concerned, they are of little value.

Col. FECHET. The one-year enlistment is of absolutely no value to the Air Service, so far as I can see. If we send one-year men to our school, it takes four months to put them through. We miss the man in his organization for four months, and we can figure 30 days more for his going and coming and getting settled on his new work, which makes it practically five months' work lost, and we can not afford to do it, as his remaining term is only about six months.

NECESSITY FOR RETAINING CIVILIAN EMPLOYEES.

Mr. ANTHONY. I notice that at various air fields there are several enlisted men that go out attached to each man that turns the propeller, etc. Are those men trained mechanics before you permit them to do that work?

Col. FECHET. They are partially trained. Those are what we call crews. The crew chief must be quite expert. He must know when he starts the machine whether the engine is in good shape. He has to be familiar enough with the rigging of aeroplanes so that he can make the most minute inspection, which is required before the aeroplane is allowed to go into the air, and know whether a machine is reasonably safe.

Mr. ANTHONY. Does the flying officer depend upon the enlisted crew to put the aeroplane in proper condition for flying before it is brought out onto the field?

Col. FECHET. Yes, sir.

Mr. ANTHONY. And then he makes an inspection of the machine before it is flown?

Col. FECHET. If any officer goes into a machine without having previously gone over it, he has violated his orders.

Mr. ANTHONY. Then these trained mechanics are used most largely in the repair of ships?

Col. FECHET. And the testing in hangars by crew chiefs. Some of them are used on instruments. We can not train in the Air Service an all-around mechanic—we can not produce a mechanic who can handle everything on the airplane—because the time is not sufficient. You can not make a man, in other words, a sufficiently good expert on carburetors, on ignition, on plane-engine work, on rigging, so that he is thoroughly reliable on all of them. We have to have special men for carburetors, special men for ignition, special men for engines, and special men for rigging.

Mr. ANTHONY. Is there anything more difficult about the carburetion and about the electrical connections of an airplane than of an automobile?

Col. FECHET. Absolutely; yes, sir.

Mr. ANTHONY. It has the same principle in it?

Col. FECHET. It has the same principle, but it is the difference between an Ingersoll watch and a Swiss repeater. Nobody would go into the air with a Ford engine.

Mr. ANTHONY. The reason I ask all these questions is that the progress of the Air Service seems to be largely in the hands of the civilian employees so far as its practical working is concerned.

Col. FECHET. I think if you will let me explain one little point—

AVERAGE SALARY OF CIVILIAN EMPLOYEE.

Mr. ANTHONY. And what we would like to do is to get it in the hands of the commissioned and enlisted personnel.

Col. FECHET. I see your point, and it would please me very much indeed if these men were all officers and enlisted men; if you will notice the average salary in my activity is \$1,492 for civilians.

Mr. ANTHONY. Among your civilian employees?

Col. FECHET. Yes. Of course we have some men that are paid higher salaries and some that are paid less, but the average is \$1,492.

which is a very low figure compared to the maintenance of the average enlisted man, counted by grades. We have enlisted men whose pay runs up almost to \$250 per month, besides which they have a lot of emoluments.

Mr. ANTHONY. Enlisted men?

Col. FECHET. Yes, sir; specialists.

Mr. ANTHONY. What rank?

Col. FECHET. Master sergeants flying status.

Mr. ANTHONY. At that price do you get sufficient men to fill those places?

Col. FECHET. No, sir.

Mr. CRAMTON. Do you find that in recent weeks you have better success in getting them?

Col. FECHET. We are getting more men, but the class of men that we are getting now are not good enough to rate as master sergeants.

Mr. ANTHONY. Is the Air Service allowed to recruit its own men or do you have to take men over from the general recruitings?

Col. FECHET. We get our men from the pool. We are allowed to go out, of course, and issue propaganda, and the man is allowed to apply for the Air Service.

ENLISTED MEN BECOME CIVILIAN EMPLOYEES.

Mr. ANTHONY. Do you enlist men at the various air stations?

Col. FECHET. Yes; we are allowed to do that. One point that I believe has not been brought out before the committee is the fact that we have a lot of enlisted men who voluntarily, at the end of three years, refuse to go on serving with us as soldiers, but they will accept a position as a civilian at considerable less actual return. One reason is that it is very hard to show the man, of the type of man that is enlisted in the Army, that his emoluments are worth money to him. He does not handle the actual cash. You who have been dealing with military matters know that it is almost impossible to put that idea across with the average young man in this country. Because he gets only \$30 cash from the Government he thinks he is better off outside at \$75.

Mr. ANTHONY. When he is actually getting more in the service?

Col. FECHET. Absolutely. Another thing is that they can stabilize their lives as civilians. A soldier is jerked from one place to another, without any chance to dictate where he is going to go. A lot of these men are fairly high-grade men. They are men of considerable intelligence and we develop them to a point where they are pretty good mechanics. Now, they do not have to move if they are civilians. For instance, at the A. S. M. S. there are civilian instructors. There they can establish themselves, start buying homes on the installment plan. It gives them an incentive to save money, it stabilizes them, they can have a family, and in that way they are better off than the enlisted men, who are getting more money. They will not stay for more money.

FLYING CADETS.

Mr. ANTHONY. Are flying cadets in the service taken into the schools?

Col. FECHET. Yes, sir.

Mr. ANTHONY. How many flying cadets have you?

Col. FECHET. The appropriation is based on 1 250.

Mr. ANTHONY. How many flying cadets have you actually?

Col. FECHET. Two hundred and fifty-eight. They do not go to this A. S. M. S.

Mr. ANTHONY. What is that?

Col. FECHET. The Air Service Mechanics' School, where we train enlisted mechanics.

Mr. ANTHONY. Where do you fly cadets?

Col. FECHET. At Carlstrom and March Fields. We have two fields where they get their primary training.

Mr. ANTHONY. Where do you get these 250 flying cadets from? They are enlisted men, are they not?

Col. FULLER. They were enlisted very largely because they were told they would be taught to fly.

Gen. MENOHER. They are included in our 16,000.

Mr. ANTHONY. You will also take from among the most apt of the enlisted those to go into this class of flying cadets?

Col. FECHET. Yes, sir.

Col. FULLER. I would like to state also, Mr. Chairman, that I will insert in the record the number that we have of the higher grade of noncommissioned officers. We have only 192, for instance, of the number authorized. I will insert the number of the others.

(The statement referred to is as follows:)

Statement showing number of staff sergeants, technical and first sergeants, and master sergeants now authorized for the Air Service and the number in said grades now assigned to the Air Service.

	Master sergeants.	Technical and first sergeants.	Staff sergeants.
Number authorized.....	258		1,130
Number assigned.....	192		40

Mr. ANTHONY. Will you put in the record and classify the civilian employees?

Col. FECHET. Yes, sir.

Mr. ANTHONY. And particularly the number of aeronautical engineers, chemists, etc.

Col. FECHET. Yes, sir.

Mr. ANTHONY. Is this division of medical research connected with the schools?

Col. FULLER. Col. Truby is here.

Mr. ANTHONY. Go ahead, Colonel, with the other information that you want to give.

MECHANICS.

Col. FECHET. As long as this question is going to come up year after year I would like to invite your attention to the fact that this is not anything special for this year. It is going on year after year. If you are going to have an efficient Air Service, we have to have this type of mechanics. If we could get mechanics from the Packard factory we would have to give them a course in training. Their work is so rough that we can not use it. I would like to tell you what they do with automobile engines. They will set them up so tight that they have to use a truck to pull them when they want to start the engines. Our engines have to be ready when they come off

the stocks, without any binding, because to run them fast when tight will burn them up. Our engines, as I pointed out before, is the difference between an Ingersoll watch and a Swiss repeater. Our stuff has to fit and fit full speed from the time it is set up. You may have an automobile engine of the finest kind and set it up so tight that you have to hitch a truck to it to start it, and if you do not run it too fast you will not hurt it. But if our engine were as tight as that it would ruin it to run it fast.

Mr. ANTHONY. Why is it that when you see an airplane in operation you see not only a pilot and a flyer, but two mechanics, whereas in a civilian machine you will see a pilot and one mechanic.

Col. FECHET. Do you want to fly in the one that has only the one mechanic?

Mr. ANTHONY. I do not want to fly in either.

Col. FECHET. I do not want any of that. I want to take risks only in stuff that is taken care of. These people, in my opinion, should be prevented by law from operating. They are a most serious menace. The men with blackjacks that we are reading about are no more dangerous than they are.

Mr. ANTHONY. But at the country fairs we see the civilian flyers taking up hundreds of people.

Col. FECHET. They do. They do not fly, of course the dangerous high-speed stuff that we do. They use what we call "Jennies."

Mr. ANTHONY. What is that?

Col. FECHET. Training planes; where they make from 50 to 60 miles an hour. They seldom make over that. It is play alongside of what we do. We are trying to develop an instrument of war, not something that will get around and fly 15 or 20 minutes. They do not go any place except where they can land by gliding. They charge \$1 or \$2 a minute, so they do not want to go very far away. They are within gliding distance of the landing field practically all the time.

Mr. ANTHONY. In reading the record of the last year or two, I see that it was stated that in six months you could probably train enough mechanics among the enlisted men for the service so that you would have material for mechanics. It is now stated that you have not been able to get a large product of mechanics in your schools.

Col. FECHET. No, sir; we can not train them in six months anywhere. We make helpers out of them. It is a long, tedious process to develop an airplane mechanic. We do not even hope to develop that class of men in the time that we have these men.

Mr. ANTHONY. So that you are asking approximately the same amount for the next fiscal year that you are using for this fiscal year?

Col. FECHET. I think so, when due consideration is given the fact that this year we operate fewer schools with fewer men each than we will in fiscal year 1922.

FLYING RESERVE OFFICERS.

(See p. 312.)

Col. FULLER. There is an item, Mr. Chairman, added this year of \$394,000, under this \$2,200,000, for the flying reserve officers at these 15 places that I spoke of.

Mr. ANTHONY. How much did you expend this year for naval reserve officers to fly?

Col. FECHET. There is no way of telling that. We flew everyone that would come.

Mr. ANTHONY. With the equipment you had on hand?

Col. FECHET. We would fly them in our regular fields. Of course we are asking for money to use where they can not do that, on account of the expense.

Mr. ANTHONY. How long do you require a reserve officer to fly before he reports for duty at one of these fields that you have?

Col. FECHET. There is no fixed time. If he has been off flying a long time, we give him dual instruction, send him up with a competent pilot, and he flies sufficient time until the competent instructor says he can fly solo. It may be two minutes with one man and may be two hours with another.

Mr. ANTHONY. How many reserve officers have reported for instruction and practice this year?

Col. FECHET. I have not those figures.

Mr. ANTHONY. So that it is problematical, the number you have in training?

Col. FECHET. We have a great many inquiries from people that are too far away. We train a great many in the fields in Texas because there are a large number of ex-air service officers in Texas, and we fly a great many.

Mr. ANTHONY. You do not think it is necessary to establish new schools to permit these officers to fly?

Col. FECHET. We are not asking for schools. This is in connection with the landing fields that are mentioned.

Mr. ANTHONY. But with your present facilities you could permit a great many of these reserve officers to get their training next year?

Col. FECHET. We can not get them there.

Col. FULLER. No, sir. One place where we got quite a number went down at Love Field, where a considerable number had gone down on account of a strike in the oil wells, but that was merely temporary and incidental. The place we have got to go to get reserve officers to fly is where they are located. That map, Mr. Chairman, will give you a very good idea of it. There are approximately 250 to 300 around and around Boston with no facilities whatever to fly. There are approximately 250 to 275 around New York. Now there we propose to take care of them at Mitchel Field. There is a large number in Philadelphia, with no field. We have been trying to take care of Baltimore from Bolling Field here by sending planes over there every week.

Mr. ANTHONY. Colonel, at this time when the Government has not any too much money to spend, would it not be more feasible simply to use the facilities that we have for the training of such officers rather than to increase them?

Col. FULLER. This must be considered in an entirely different light. These reserve officers of whom we speak are the war-trained officers and who are by all means the greatest asset that is left out of the war, but they will remain as an asset only by giving them occasional flying. We must take this flying to them, where they live in large numbers. Of course, we will use established facilities, as far as is practicable.

Mr. ANTHONY. Is it proposed to pay the transportation of those officers to and from the field?

Col. FULLER. No, sir; not in this item that we speak of at all. This is the occasional flying that they must have throughout the year. The War Department would have a general program in which the Air Service would fit wherein reserve officers do have a 15 days' period of training with tactical units, and that sort of thing. But this is the sole proposition of maintaining as effective as possible this force of 5,300 reserve officers that we have got. It is separate entirely from the idea of building up a war reserve. It is for the reserve we now have. It is the wisest expenditure. There is not an expenditure in the whole appropriation that is better.

Mr. ANTHONY. If I am not incorrectly informed, the other branches of the Army give training to reserve officers that apply to those branches, notifying them at certain times of the year that if they will report to such and such a place where they are equipped to give them training, that it will be given.

Col. FULLER. That can be done with Cavalry, Infantry, and Artillery.

Mr. ANTHONY. Why can not that be done in the Air Service?

Col. FULLER. This is the difference: These people will remain flyers only by flying occasionally throughout the year.

Mr. ANTHONY. But why can not you give them that training when they report at such places as you indicate that you will take care of them?

Col. FULLER. We want to get them to these improvised fields once or twice a month and give them flying there. The transportation now would be enormous if we were to send them frequently to the few fields we now have.

Mr. ANTHONY. Here is the idea: You already have a large equipment of flying fields over the country. Do you propose to add to them simply for the purpose of training these reserve officers? It seems to me that you can readily use the field equipment that you now have.

Col. FULLER. Following your idea exactly, at 5 of the 13 of these places we take care of them by established facilities. At 8 of the places we expect to get the land and put up hangars and shops there and machines.

Mr. CRAMTON. You say you have the land?

Col. FULLER. As explained before, we expect——

Mr. CRAMTON. Without expense to the Government?

Col. FULLER. Without expense to the Government. Now, in New York we will take care of them at Mitchel Field, at Detroit at Selfridge Field, and at Boston in the fortification project. There is a proposition to get an airdrome in the seacoast-defense project at Boston. That airdrome would serve this purpose also. So on through. The expense at these other places will be very much less than establishing a field. It will not be a field in the sense that we generally speak of a field.

Mr. CRAMTON. What is this item?

Col. FULLER. The whole item is only a million dollars for all of these places.

Mr. CRAMTON. That is, the equipment of these eight fields at \$1,000,000.

Col. FULLER. The airdomes; yes, sir.

Mr. CRAMTON. Take, for instance, such a field as Selfridge. What do you have to provide there?

Col. FULLER. We think that Selfridge Field will completely meet the requirements of the very numerous calls from war-trained flyers in and around there.

Mr. CRAMTON. That is included in the eight?

Col. FULLER. No, sir. No additional facilities for Detroit.

Mr. ANTHONY. Colonel, I wish you would put in the record a statement of the manner in which you propose to spend that appropriation.

Col. FECHET. I have it here, the places and the amount for each place, the class, position, and the number of men.

Col. FULLER. We will put in a complete statement. The one that Col. Fechet refers to is only for his group.

(The statement follows:)

AIR SERVICE ESTIMATES FOR CONSTRUCTION OF GAS PLANTS, HANGARS, AND REPAIR SHOPS (MUNICIPAL LANDING FIELDS), FISCAL YEAR 1922.

In order that the officers of the Air Service Inactive Reserve may keep in training it is necessary that fields be established in various localities and situated where the greatest numbers of these reserve officers may take advantage of the opportunity and fly. It is proposed establishing 13 of these so-called municipal landing fields, at 8 of which it will be necessary to have proper facilities for the care of Government property such as planes and equipment. A careful study has been made of the project, and the equipment for each of these 8 proposed fields is as follows:

Boston, Mass.:

1 wing cone, with proper support and field marker T...	\$150	
1 well with pump, 100-gallon tank.....	1,000	
1 building 25 by 100 feet, to contain the field office, lockers, meteorological office, and emergency hospital, and for use as a machine shop, supply storage, and workroom	25,000	
1 oil tank, approximately 500 gallons, with pump.....	750	
1 oil house, 10 feet square.....	850	
1 gas tank, with approximately 1,000-gallon capacity, with pump.....	1,000	
3 hangars, steel, size 66 by 120 feet, with steel folding or sliding doors and cement floors, cost of each, \$35,000	105,000	
Total		\$133,750

Philadelphia, Pa.:

1 wing cone, with proper support and field marker T....	\$150	
1 well with pump, 100-gallon tank.....	1,000	
1 building 25 by 100 feet to contain the field office, lockers, meteorological office, and emergency hospital, and for use as a machine shop, supply storage, and workroom.....	25,000	
1 oil tank, approximately 500 gallons, with pump.....	750	
1 oil house, 10 feet square.....	850	
1 gas tank, with approximately 1,000 gallons capacity, with pump	1,000	
4 hangars, steel, size 66 by 120 feet, with steel folding or sliding doors and cement floors; cost of each, \$35,000.....	140,000	
Total.....		168,750

Baltimore, Md.:

1 wing cone, with proper support and field marker T----	\$150
1 well with pump, 100-gallon tank-----	1, 000
1 building 25 by 100 feet to contain the field office, lockers, meteorological office, and emergency hospital, and for use as a machine shop, supply, storage, and workroom-----	25, 000
1 oil tank, approximately 500 gallons, with pump-----	750
1 oil house, 10 feet square-----	850
1 gas tank with approximately 1,000 gallons capacity, with pump-----	1, 000
3 hangars, steel, size 66 by 120 feet, with steel folding or sliding doors and cement floors; cost of each, \$35,000-----	105, 000

Total----- \$133, 750

Chicago, Ill.:

1 wing cone, with proper support and field marker T---	\$150
1 well with pump, 100 gallon tank-----	1, 000
1 building 25 by 100 feet, to contain the field office, lockers, meteorological office, and emergency hospital, and for use as a machine shop, supply storage, and workroom-----	25, 000
1 oil tank, approximately 500 gallons, with pump-----	750
1 oil house, 10 feet square-----	850
1 gas tank, with approximately 1,000 gallons capacity, with pump-----	1, 000
3 hangers, steel, size 66 by 120 feet, with steel folding or sliding doors and cement floors, cost of each, \$35,000-----	105, 000

Total----- 133, 750

St. Paul, Minn.:

1 wing cone, with proper support and field marker T---	150
1 well with pump, 100 gallon tank-----	1, 000
1 building 25 by 100 feet, to contain the field office, lockers, meteorological office, and emergency hospital, and for use as a machine shop, supply storage, and workroom-----	25, 000
1 oil tank, approximately 500 gallons, with pump-----	750
1 oil house, 10 feet square-----	850
1 gas tank, with approximately 1,000 gallons capacity, with pump-----	1, 000
3 hangers, steel, size 66 by 120 feet, with steel folding or sliding doors and cement floors, cost of each, \$35,000-----	105, 000

Total----- 133, 750

Denver, Colo.:

1 wing cone, with proper support and field marker T---	150
1 well with pump, 100 gallon tank-----	1, 000
1 building 25 by 100 feet, to contain the field office, lockers, meteorological office, and emergency hospital, and for use as a machine shop, supply storage, and workroom-----	25, 000
1 oil tank, approximately 500 gallons, with pump-----	750
1 oil house, 10 feet square-----	850
1 gas tank, with approximately 1,000 gallons capacity, with pump-----	1, 000
1 hanger, steel, size 66 by 120 feet, with steel folding or sliding doors and cement floors-----	35, 000

Total----- 63, 750

Kansas City:

1 wing cone, with proper support and field marker T----	\$150
1 well with pump, 100 gallon tank-----	1, 000
1 building 25 by 100 feet, to contain the field office, lockers, meteorological office, and emergency hospital, and for use as a machine shop, supply storage, and workroom-----	25, 000
1 oil tank, approximately 500 gallons, with pump-----	750
1 oil house, 10 feet square-----	850
1 gas tank, with approximately 1,000 gallons capacity, with pump-----	1, 000
2 hangers, steel, size 66 by 120 feet, with steel folding or sliding doors and cement floors, cost of each, \$35,000-----	70, 000

Total----- \$98, 750

Seattle, Wash.:

1 wing cone, with proper support and field marker T----	\$150
1 well with pump, 100-gallon tank-----	1, 000
1 building 25 by 100 feet, to contain the field office, lockers, meteorological office, and emergency hospital, and for use as a machine shop, supply, storage, and workroom-----	25, 000
1 oil tank, approximately 500 gallons, with pump-----	750
1 oil house, 10 feet square-----	850
1 gas tank with approximately 1,000 ballons capacity, with pump-----	1, 000
3 hangars, steel, size 66 by 120 feet, with steel folding or sliding doors and cement floors, cost of each, \$35,000--	105, 000

Total----- 133, 750

Grand total----- 1, 000, 000

Outside of Washington—Field Service, statement of civilian employees, fiscal year 1922.

Activity.	Number of employees.	Salary.	Activity.	Number of employees	Salary.
Flying fields:			Balloon schools—Continued.		
Bolling Field.....	50	\$83, 592	Field officers' school, Langley Field.....	28	\$37, 340
Carlstrom Field.....	36	48, 050	Pursuit school, Rockwell Field.....	46	61, 140
Crissey Field.....	15	21, 340	Airship school, Scott Field (3 months' operation)....	7	3, 410
Kelly Field.....	80	106, 280	Corps area—		
Langley Field.....	50	73, 700	Camp Devens, Mass.....	2	2, 410
Langley gas plant.....	54	97, 862	Camp Sherman, Ohio....	2	2, 410
Langley helium.....	10	20, 700	Camp Funston, Kans....	2	2, 410
March Field.....	38	50, 040	Artillery firing centers—		
Mather Field.....	26	34, 300	Camp Knox.....	2	2, 410
Miller Field.....	15	21, 340	Camp Bragg.....	2	2, 410
Mitchel Field.....	172	234, 690	Ordnance proving ground, Aberdeen, Md.....	9	12, 710
Post Field.....	54	74, 075	Reserve, inactive duty....	263	344, 410
Balloon schools:			Pacific coast gas plant for balloon company.....	7	3, 010
Brooks.....	40	61, 100	Training centers—		
Brooks gas plant (6 months' operation).....	7	6, 000	Camp Benning.....	2	2, 410
Lee Hall.....	11	14, 300	Camp Jackson.....	2	2, 410
Omaha.....	131	240, 146	Camp Leavenworth.....	15	21, 140
Omaha gas plant (3 months' operation).....	7	3, 000	Camp Lewis.....	10	12, 010
Ross Field.....	22	35, 940			
Air Service mechanics school, Kelly Field.....	258	400, 120			
Bombardment school, Ellington Field.....	16	23, 315			
Photo school.....	4	5, 400			
			Total.....	1, 495	2, 220, 770

	Bolling Field.	Carlstrom Field.	Crissey Field.	Kelly Field.	Langley Field.	March Field.	Mather Field.	Miller Field.	Mitchel Field.	Post Field.	Brooks Field.	Lee Hall.	Omaha.	Ross.	A. S. M. S., Kelly Field.	Bombardment School, El- lington.	Rockwell Field, pursuit	Scott Field, airship school.	Camp Devens, Mass. (Corps Area.)	Camp Sherman, Ohio. (Corps Area.)	Camp Funston, Kans. (Corps Area.)	Artil- lery firing centers.		Aberdeen Proving Ground.	Reserve, inactive duty.	Pacific coast, gas plant for balloon company.	Training centers.				Total.	
																						Camp Benning.	Camp Jackson.	Camp Leaven- worth.	Camp Lewis.							
Aero engineers.....	1	1			1	1	1			2	3		17	1	1	1	2														31	
Blacksmiths.....	1																													2		
Cabinetmakers.....	2																													2		
Carpenters.....			1		3			1	1	2			4		10	2								1						23		
Chaufeurs.....																														2		
Chemists.....					1				26	6	8	4	4		12		6	2												5		
Clerks.....		2		5	9	2							10	3																4		
Cell men.....																														4		
Draftsmen.....					2						2		10	1	2																18	
Electricians.....	1		1		2			1	1	2			10	1										1							20	
Engineers.....				1							2		7																		10	
Firemen.....		2			13	2				4					2		4														27	
Foreman.....					8				6				4					1													20	
Guards.....									3																						3	
Instructors.....											1		1		189																191	
Laborers.....	14	12	3	26	14	14	18	3	83	12	20		31		36		12	1						3							335	
Machinists.....	1				3								6	1																	11	
Mechanicians.....	26	15	6	36	66	15	2	6	38	16	8	6	22	10		10	16	3						6							549	
Painters.....					1					1																					2	
Photographers.....													2																		2	
Plumbers.....			1		1			1		2			2																		8	
Steam engineers.....			1		5			1		1														1							9	
Stenographers.....	4	2	2	12	16	2	4	2	12	4	2		4	4	4	2	4		2	2	2	2	2	2	2						107	
Storekeepers.....		2			1	2	1		1	2	1	1	4	1	2	1	2														21	
Vulcanizers.....																																
Total.....	50	36	15	80	146	38	26	15	172	54	47	11	138	22	258	16	46	7	7	2	2	2	2	2	2	9	263	7	2	2	10	1,495

FLYING RESERVE OFFICERS.

(See p. 305.)

Mr. CRAMTON. Can you also put in a statement showing the reserve officers, the number that has shown an interest in this sort of training—the probable number that would report for training?

Col. FULLER. It would be rather difficult to give the exact number. The number that has shown an interest is numerous.

Mr. CRAMTON. But the number that has actually reported for training in the current year.

Col. FULLER. Yes, sir; we will show that so far as we have data. We have not been prepared to show that during the reconstruction period for all places. The personnel officer informs me as follows:

Check made at Bolling Field shows that 35 reserve officers have taken flights at Bolling and 39 at Baltimore, making a total of 74 in the Third Corps Area. These officers average three flights each. Since the Third Corps Area has a total of 413 reserve pilots so commissioned, it is proper to state that approximately 20 per cent of these have availed themselves of the opportunity of flying.

To date this office has issued 3,300 cards to reserve pilots and it is reasonable to assume that 20 per cent of these have reported at the various stations for the purpose of flying. The following estimates is therefore made in answer to your questions:

Reported at stations.....	660
Total number of flights made.....	1,980

Col. LINCOLN. We have an identification card which we issue to these reserve officers, showing that the man is a rated flyer and that he is physically fit to fly, and of the 5,300 who are flyers, every one of them has written in asking for it so that he can go to a local field or such field as he might be able to reach and show that card and take the flying. Everyone has asked for that, indicating that they desire to so report. Now, we do not know whether everyone that has written has had a chance to fly, but we do know that they all want to if we can permit them to do so.

Mr. CRAMTON. May I ask, Colonel, the amount of training that a man once competent to fly requires to keep him in fair training?

Col. FULLER. That is largely——

Mr. CRAMTON. By fair training I mean such training that in an emergency he could quickly be brought into shape.

Col. FULLER. There is considerable difference of opinion in the advisory board, where the matter has been discussed a great deal, and the opinion of a great many of the flying officers who have had contact with these reserve officers has been obtained. The consensus of their opinion is that these reserve officers should fly at least twice a month.

Mr. CRAMTON. Now, that perhaps would be required to keep him up in the best of training. But in order to keep him fairly in training so that in event of an emergency he could be given some intensive training and in a short period be brought into the best condition it would not require training twice a month to accomplish that, would it?

Col. FULLER. I should have added that this opinion is based on the proposition of giving them an intensive course immediately before being required to meet the requirements of active service in time of war.

Maj. HICKAM. We have decided that a man should have 10 landings a month. The danger of a man killing himself is considerable if he is untrained. We have set 10 landings a month as a minimum. I will not fly without without an instructor if I can not get 10 flights a month.

Mr. CRAMTON. In that event we might as well forget the building up of a reserve force in the Air Service, because that is beyond the possibility—to give 10 flights a month.

Maj. HICKAM. It takes only a half an hour, sir. The length of the flight is not as important as the landing and take off. That is where practice is necessary.

Mr. CRAMTON. Yes; but it takes some time to get to the field unless you fly to the field with a machine and a staff of mechanics.

Col. FECHET. Each one should have a field where he could go. I do not mean each individual man should have an individual field.

Mr. CRAMTON. You see the strength of any service in the country is to build up an effective reserve that could be quickly called in an emergency.

Col. FULLER. Particularly so in the Air Service.

Mr. CRAMTON. If it is really true that a man can not be kept in training with less than 10 flights a month, I say again you might just as well forget having a reserve service in the air, because for the great body of your reserve officers you can not provide them with 10 flights a month.

Col. FECHET. We can; yes, sir.

Col. FULLER. I would like to make this point, to reiterate what I said before, that this matter has been studied by the advisory board, and the opinion of a great many officers has been had in the matter, appreciating the fact that this is the only way that the United States will ever be prepared to carry on aerial warfare, we have taken as a consensus of opinion that flying twice a month will maintain their efficiency, so that with a refresher course, as it is called, immediately before war, a reasonable degree of efficiency would result. The practice in landing 10 times—we call it 10 flights, or hops—can be made in less than one hour's time.

Mr. CRAMTON. All right. Out of 5,300 men on your reserve list, if you have the fields equipped, if you use your million dollars, how many of those 5,300 men do you anticipate in the next year would receive that twice-a-month training?

Col. FULLER. Thirty-three hundred is estimated. That is the number that the estimate is based on.

Mr. CRAMTON. That is based on what inducements to them—their traveling expenses?

Col. FULLER. No inducements at all. It is an opportunity to come and fly. The most persistent and insistent sentiment in the Air Service to-day is among these reserve officers for a chance to come and fly—just the chance; they will do the rest.

Mr. CRAMTON. I can understand that.

Col. FULLER. It is a fortunate thing that such a great number of these officers are concentrated in certain places where large numbers can be taken care of from single airdomes. The map shows you those large concentrations.

Mr. CRAMTON. To what extent would that feeling wear off? Granted that you have 3,300 this year, how many would you have the following year? Of course, this is just problematical. What I mean is, is that a feeling that is likely to cool and wear off, more or less?

Col. FULLER. I think Col. Hickam particularly can answer that.

Col. FECHET. That belongs to my group. We propose to replace these men with 2,500 men that we get from the cadets. Of course, there will be a certain percentage of these 3,300 that will drop out.

Mr. CRAMTON. They will be getting away from you on account of other interests.

Col. FECHET. We want to prevent them from getting away. If we wait three or four years, there will not be any of the 3,300 left. The falling off of that 3,300 will be more than met by the graduation of 2,000 cadets if we start now. If they can qualify we will commission them in the reserve. If they want to go into civil life they will be discharged, or they can go into the Army as enlisted men. There is nothing against the commissioned reserve man being an enlisted man in the Regular Army.

Mr. ANTHONY. They are eligible to commissions in the service?

Col. FECHET. They are eligible for commissions in the service if they have sufficient education. A man for the peace-time army work is more of an instructor than anything else. He has to be a man of more education than a man who is suitable for a commission in time of emergency.

EQUIPMENT OF THE NATIONAL GUARD.

Mr. ANTHONY. I would like to ask you how extensively it is proposed to equip the National Guard with Air Service organizations?

Gen. MENOHER. Only an observation squadron in a National Guard division for the first step.

Mr. ANTHONY. Are the States organizing any Air Service?

Gen. MENOHER. That is all in the hands of the War Department boards.

Mr. ANTHONY. Do you know how far that work has progressed? Do you know how many States have Air Service organizations?

Col. FULLER. The War Plans Division have gotten out their plans in final form so that they have gone to the States only in the last two weeks.

Mr. ANTHONY. You do not know of any States that have air-service organizations?

Gen. MENOHER. Not completed; no.

Col. FECHET. Minnesota and New York have organizations.

Mr. ANTHONY. Do you think it practical for the National Guard to undertake air service?

Gen. MENOHER. With the supervision that we propose to give in the Air Service of the Army. We have got to supervise ordinarily the care and maintenance of the plant, because it is a very difficult thing, and we feel that for the present at least——

Mr. ANTHONY. You are asking for no appropriation in this bill then. It all comes under the head of National Guard?

Col. FULLER. Yes, sir.

BALLOON AND AIRSHIP DIVISION.

Mr. ANTHONY. Now, General, we will go into the balloon section of this appropriation. How much are you asking for the lighter-than-air operations?

Col. FULLER. Are you referring to the item—it is distributed throughout all this section.

Mr. ANTHONY. I notice there are several items scattered through this statement, and I wondered if you could tell us the total amount that you are asking for for lighter-than-air service.

Col. FULLER. Yes, sir; I will read the principal items. The total—

Mr. ANTHONY. Is that a concise statement of the balloon operations you have there?

Col. FULLER. Yes, sir.

Mr. ANTHONY. All right. We want that in the record, but you tell us now what they are.

(The statement referred to is as follows:)

Air Service estimates for fiscal year 1922, Balloon and Airships Division.

Item and purpose:

	Amount.
302. Airships, maintenance and repair of—	
4 semirigids, 1,200,000 cubic foot capacity-----	\$100,000
1 nonrigid, 320,000 cubic foot capacity-----	3,000
9 nonrigids, 190,000 cubic foot capacity-----	50,875
3 nonrigids, 90,000 cubic foot capacity-----	7,875
2 nonrigids, 35,000 cubic foot capacity-----	4,950
	<hr/>
	166,700
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303. Balloons and their spare parts, maintenance, and repair of—	
21 spherical free balloons-----	2,450
45 observation balloons (type R)-----	17,000
	<hr/>
	19,450
	<hr/>
305. Engines and their spare parts, maintenance, and repair of—	
24 engines for semirigids, 1,200,000 cubic foot capacity--	5,850
2 engines for nonrigids, 320,000 cubic foot capacity--	200
20 engines for nonrigids, 190,000 cubic foot capacity--	5,400
5 engines for nonrigids, 90,000 cubic foot capacity----	1,925
3 engines for nonrigids, 35,000 cubic foot capacity----	600
	<hr/>
	13,975
	<hr/>
306. Maintenance and repair of equipment material and instruments for Air Service schools-----	4,400
307. Instruments and accessories for aircraft and engines, maintenance, and repair of-----	4,434
308. Machines, general equipment, and tools, maintenance and repair of-----	22,775
701. Instruction, purchase of equipment material, and instruments for (Air Service schools)-----	100,000
216. Miscellaneous services not properly chargeable to other items-----	2,525
218. Miscellaneous supplies and equipment not properly chargeable to other items-----	4,700
219. Salvaging wrecked aircraft, supplies, and services in connection with-----	8,000

107. Instruments and accessories for aircraft and engines, purchase and production of-----	\$50, 000
705. Machines, general equipment, and tools, purchase and production of-----	20, 000
801. Helium, purchase of land for development of (land for extraction-plant sites, power stations, and pipe lines)----	25, 000
802. Helium, lease of land for development of (helium-bearing gas fields)-----	500, 000
803. Helium, construction, maintenance, equipment, and operation of plants-----	817, 750
605. Helium, experimentation with, and exploration for (experimental development, exploration for helium, investigation of new sources)-----	32, 500
110. Hydrogen, purchase of-----	300, 000
507. Hydrogen, maintenance, equipment, and operation of plants for production of-----	82, 800
104. Airships and their spare parts, purchase and production of—	
2 nonrigids, 1,200,000 cubic foot capacity, with accessories and spare parts-----	1, 972, 000
nonrigids, 190,000 cubic foot capacity, with accessories and spare parts-----	608, 000
2 nonrigids, 90,000 cubic foot capacity, with accessories and spare parts-----	214, 000
6 nonrigids, 35,000 cubic foot capacity, with accessories and spare parts-----	312, 000
1 envelope (extra) for nonrigid of 328,000 cubic foot capacity-----	75, 000
	<u>3, 181, 000</u>
103. Balloons and their spare parts, purchase and production of—	
66 balloons (type R observation)-----	395, 700
2 balloons, spherical (free)-----	7, 000
5 hangars, canvas, portable-----	40, 000
	<u>442, 700</u>
406. Gas plants, hangars, and repair shops, construction of—	
13 hangars-----	4, 685, 000
13 gas plants-----	1, 290, 000
	<u>5, 975, 000</u>
602. Experimentation and research, balloons and airships and accessories-----	1, 250, 000
603. Experimentation and research, airship engines and accessories-----	238, 000
	<u>13, 270, 700</u>
Total-----	

Col. FULLER. The total is \$13,270,0000.

Mr. ANTHONY. Right there, how much will you use during the present fiscal year?

Col. FULLER. We will have to go through the items and total them up.

Mr. ANTHONY. You will put that in the record?

Col. FULLER. I will put that in the record.

Mr. ANTHONY. Approximately, how much was it that you used last year for that purpose?

Col. FULLER. I would have to get at it approximately from this figure. There are certain deductions. I have not that yet.

Mr. ANTHONY. How do you propose to use the \$13,000,000 you are asking for?

Col. FULLER. Maintenance and repair of airships, \$166,000.

Mr. ANTHONY. When you mention airships, you mean balloons?

Col. FULLER. We mean the dirigibles.

Mr. ANTHONY. And the airplane is spoken of as an airplane.

Col. FULLER. And the balloon as an observation balloon.

(The statement referred to is as follows:)

Air Service, financial program, Balloon and Airship Division, fiscal year 1921.

Item.	Purpose.	Expended.	Balance.	Total.
602	Experimentation and research balloons, airships, and accessories.....	\$115,868.27	\$573,633.73	\$689,502.00
110	Hydrogen, purchase of.....	47,756.00	102,244.00	150,000.00
103	Balloons and their spare parts, purchase and production of.....	93,080.00	106,101.00	199,181.00
	14 balloons, spherical (free).....	\$48,000.00		
	Spare parts.....	27,000.00		
	Miscellaneous.....	33,101.00		
		108,101.00		
507	Hydrogen, maintenance, equipment, and operation of plants for production of.....	80,221.00	78,379.00	158,600.00
302	Airships, maintenance and repair of, and their spare parts.....	8,050.00	235,450.00	243,500.00
303	Balloons, maintenance, and repair of, and their spare parts.....	19,873.00	18,127.00	38,000.00
402	Helium, lease of land for development of.....	150,000.00		150,000.00
303	Helium, construction, maintenance and equipment, and operation of plants.....	140,500.00	448,000.00	588,500.00
405	Helium, experimentation with, and exploration for....	30,000.00	40,000.00	70,000.00
104	Airships and their spare parts, purchase and production of.....		712,000.00	712,000.00
	1 semirigid 1,200,000 cubic feet capacity.....	\$500,000.00		
	1 nonrigid 190,000 cubic feet capacity.....	125,000.00		
	2 nonrigid 190,000 cubic feet spares for.....	12,000.00		
	Nonrigid 325,000 cubic feet spares for.....	30,000.00		
	1 envelope, C class.....	10,000.00		
	1 envelope, D class.....	35,000.00		
		712,000.00		
406	Gas plants, hangars and repair shops, construction of			
	4 hangars.....	48,674.00	1,948,500.00	1,997,174.00
	3 canvas.....	\$24,000		
	1 steel.....	1,500,000		
		\$1,524,000.00		
	1 gas holder.....	100,000.00		
	2 wind screens.....	140,000.00		
	1 cylinder storage.....	20,000.00		
	Miscellaneous.....	164,500.00		
		1,948,500.00		
*701	Air Service schools, purchase of equipment, materials, and instruments for.....	32,950.00		32,950.00
*306	Air Service schools, maintenance and repair of equipment, materials, and instruments.....	1,000.00		1,000.00
*107	Instruments and accessories for aircraft and engines....	36,508.14	121,500.00	158,008.14
*305	Engines, maintenance and repair of: Repair and maintenance of airship engines.....		50,000.00	50,000.00
*216	Miscellaneous services not properly chargeable to other items.....		2,575.00	2,575.00
*215	Miscellaneous supplies and equipment not properly chargeable to other items.....		12,050.00	12,050.00
*603	Experimentation and research, engines and accessories for airship engines.....		50,000.00	50,000.00
	Grand total.....	804,480.41	4,498,559.73	5,303,040.14

Mr. ANTHONY. That totals \$13,000,000.

Col. FULLER. Yes.

Mr. ANTHONY. We would like to go into that. Where is that now in this sheet?

Col. FULLER. They are not segregated.

Mr. ANTHONY. I have not been able to find that \$5,000,000 item.

Col. FULLER. That is under the \$9,000,000 for gas plants, hangars, etc.

PURCHASE OF AIRSHIPS AND BALLOONS.

Mr. ANTHONY. Major, are you spending any money now for the purchase of balloons or lighter-than-air ships in connection with the Navy?

Maj. VAN NOSTRAND. We have some from the Navy, some small nonrigid airships. We have purchased no balloons from them or in conjunction with them, having a sufficient supply on hand.

Mr. ANTHONY. Have you under contract the purchase of any large dirigibles, like the one you call *R-34*?

Maj. VAN NOSTRAND. No, sir; by decision of the joint board representing the Army and Navy, the Air Service is barred from participation in the rigid, airship program until such time as the Navy has developed a suitable type.

Mr. ANTHONY. All the purchases made in England the past year have been made by the Navy?

Maj. VAN NOSTRAND. They have.

Mr. ANTHONY. And you reserve for the Army the purchase of observation balloons only?

Maj. VAN NOSTRAND. No, sir; our program includes spherical balloons, for training, observation balloons, and nonrigid and semirigid airships for which we have need. We have also need for the rigid ships, but are dependent on the Navy for that type.

Mr. ANTHONY. They are used primarily for observation purposes. are they not; the types that you speak of that the Army is going to purchase?

Maj. VAN NOSTRAND. Observation and training. The semirigid ship will be used for practically everything that the rigid ship will be used for, because we will have to use the best thing that we can get. The rigid would be better, but we do not contemplate limiting our activity to observation work. Our first problem is essentially to get the personnel, both enlisted and commissioned, trained to handle these ships.

Gen. MENOHER. You understand—mention was made of the rigid and semirigid ships. We are negotiating with the Italian Government for the purchase of one semirigid ship about half the length of the *R-34*. It was developed by the Italians for work in the mountains.

Mr. ANTHONY. It is a ship propelled by its own power?

Gen. MENOHER. Yes; and we need that particularly for our training purposes in order that we may keep crews trained in navigation of a ship of that kind, and the trained crews could be transferred then without delay to a rigid ship in case it was deemed desirable.

Mr. ANTHONY. Is it impossible to manufacture that type of ship in this country?

Gen. MENOHER. It is not impossible. When we get this ship we expect to be able to build one like it or better.

AIR SHIPS AND BALLOONS ON HAND.

Mr. ANTHONY. How many balloons of the type that the major has described does the Army possess?

Maj. VAN NOSTRAND. What type do you mean?

Mr. ANTHONY. You say that the Army proposes to use the semi-rigid type?

Maj. VAN NOSTRAND. We have none of the semirigid type. We have ships of the small two-man control nonrigid type; that is, one man controlling the altitude and the other the direction.

Gen. MENOHER. The "Blimp," so-called.

Maj. VAN NOSTRAND. We have six nonrigid of 190,000 cubic feet gas capacity; one Zodiac of 320,000 cubic feet gas capacity, and two "SS" twins, which we bought from England at the close of the war.

Mr. ANTHONY. And in addition to that how many observation balloons have you?

Maj. VAN NOSTRAND. We have on hand 650 observation balloons which are deteriorating rapidly in storage.

Mr. ANTHONY. What are they built of, rubber largely?

Maj. VAN NOSTRAND. Cotton cloth rubberized into fabric.

Mr. ANTHONY. What is the life of the fabric?

Maj. VAN NOSTRAND. We have been unable to determine. At the close of the war every bit of information from the best sources available was obtained to determine the best method of storing them, and the best advices from the scientists was obtained. But we find that balloons taken from storage are good for only one or two weeks and then they are worthless. As a result we are asking for a few new balloons because we are afraid of the balloons that we now have on hand.

Mr. ANTHONY. In other words, you do not regard it as a safe proposition to carry a large supply of balloons?

Maj. VAN NOSTRAND. Balloons in storage as a war reserve; no, sir.

Mr. ANTHONY. In a short time the 650 on hand, inherited from the war, will be worthless?

Maj. VAN NOSTRAND. Yes, sir. We are spending a great deal of effort to find some way of doping them that will protect them and prolong their usefulness, but we have not got it yet by a long ways.

THE AIRSHIP VERSUS THE AIRPLANE.

Mr. ANTHONY. What is the value of the rigid type, or the type of balloon propelled by its own power, over the airplane for scouting?

Maj. VAN NOSTRAND. I would talk all day if I talked on that.

Mr. ANTHONY. Tell us, briefly, has it any advantage for information purposes over the airplane?

Maj. VAN NOSTRAND. We of the lighter-than-air service believe it has several. In the first place, the airship is fundamentally different from the airplane in that it is not dependent on engines to stay in the air. It can stay in the air a much longer period than the airplane. Any damage to the engine, or any malfunctioning of the engine, is repaired, as a common practice, by the engineer, who is right in the car with the engine.

The airship has a much longer cruising radius than the airplane. It has a variable speed much greater than the airplane, and it is able to carry more weight compared to the other factors than the airplane can. It can stop and hover over a given point for observation or bombing.

Mr. ANTHONY. Now, major, it was stated a few years ago that it was necessary for us to go rather heavily in the production of the

lighter-than-air balloons for the reason that they had a higher ceiling than the heavier than air. But has it not been demonstrated within the last year or so that the heavier-than-air machine has a higher ceiling than the lighter than air?

Maj. VAN NOSTRAND. No, sir; the lighter than air has attained a higher ceiling, and can attain that ceiling more rapidly than can the airplane.

Mr. ANTHONY. What is the height?

Maj. VAN NOSTRAND. The highest I recall is 38,000 feet.

Mr. ANTHONY. And the highest of the heavier-than-air machines?

Maj. VAN NOSTRAND. I believe is less than 34,000.

Mr. ANTHONY. When you get a lighter-than-air machine as high as 38,000 feet, is it for any practical purpose?

Maj. VAN NOSTRAND. They can be used for observation purposes and bombing.

Mr. ANTHONY. Is it practical?

Maj. VAN NOSTRAND. If the weather is clear. Quite probably you will encounter clouds. But that great altitude is desirable to reach favorable winds traveling in the direction you want to go.

Mr. ANTHONY. Is it of any advantage as a fighting machine?

Maj. VAN NOSTRAND. With helium gas it is. When properly armed with offensive weapons and armor I think it would be a super-dreadnaught of the air that could sweep anything from the land, water, or air and hold its own against any other attack.

Mr. ANTHONY. That is your viewpoint as the head of that branch of the service?

Maj. VAN NOSTRAND. Yes; but I know some of the heavier-than-air men would disagree with that. There are lots of things we can do that others can not do. A rigid ship has an almost unlimited cruising radius. There are ships now in Germany which could go around the world at the fortieth parallel of latitude without stopping. There are ships that can stay in the air three weeks, and there are ships that can carry tons of ammunition at any height and drop their bombs accurately and get away.

PROPOSED BALLOON PROGRAM.

Mr. ANTHONY. Is not the principal use of the balloon, the lighter-than-air machine, that of observation—the use of a fixed balloon that is raised or lowered with the winch?

Maj. VAN NOSTRAND. Most of that work is done as a heritage of the war, where we had only observation balloons in our equipment. Our problem now is to develop an airship program which will assist the Air Service in caring for national defense. That carries more responsibilities than does observation.

Mr. ANTHONY. You are asking, then, in this program for next year for that large number of lighter-than-air ships with the idea of establishing a balloon control of the coast, or the establishment of balloon stations for defense around our coast. Anything of that kind in connection with it?

Maj. VAN NOSTRAND. It is rather a far-reaching program, Mr. Chairman. In the first place, for a well-defined, a well-balanced program we need air ports throughout the United States. I am speaking of something different from a landing field for an airplane.

We need landing fields and large hangars. An airship at present is dependent upon a hangar for a shelter, where it must be housed when it descends. We have frequently put this proposition to Congress and they ask where the ships are, and when we ask for the ships they ask where the hangars are, and there is a vicious circle which has no end. It takes longer to build a hangar than it does a ship, and you can not operate a ship without a hangar. While the airship can stay in the air a long time, it must come down some time.

Mr. ANTHONY. In order not to confuse the word "hangar," do you not have some other term?

Maj. VAN NOSTRAND. It is sometimes called a shed; but when you are talking in terms of a building 1,000 feet long by over 100 feet high, it is pretty difficult to call such a building a shed.

NUMBER OF BALLOON STATIONS.

Mr. ANTHONY. How many balloon stations have you?

Maj. VAN NOSTRAND. Thirteen stations in which troops are operating. We have five major stations: An airship school at Langley Field; an observation school at Lee Hall, Va.; an observation school at Ross Field, Arcadia, Calif., near Los Angeles; an airship station at Brooks Field, Tex.; and the experimental station at Fort Omaha.

Mr. ANTHONY. Is not that a larger number than is really necessary in time of peace?

Maj. VAN NOSTRAND. It is relative, depending on the responsibilities of the lighter-than-air service. I do not think it is.

Mr. ANTHONY. Well, aside from providing the Army, the several branches of the Army, with sufficient facilities for observation, what real necessity is there to go further than that in time of peace?

Maj. VAN NOSTRAND. We are 20 years behind the Germans in the development of airships. The next war will be an aerial war, fought by airships and airplanes.

VALUE OF THE AIRSHIP IN WAR.

Mr. ANTHONY. Do you believe that the airship was of any advantage to the Germans in the last war?

Maj. VAN NOSTRAND. Most decidedly, sir. I have just received excerpts from the official accounts of the bombing of England by the Zeppelins, which, as you know, was particularly dangerous to the ships, because an incendiary bullet, properly placed, would bring the ship down in flames. It is now admitted that the official reports that the raids were noneffective were not true. The official reports now show that they were decidedly effective, and not only had a great moral effect by causing many people to leave London and many munition centers, but that they had a direct effect on cities, railroad and manufacturing centers, where bombs destroyed thousands of dollars' worth of buildings and materials. The damage inflicted was very great. Many troops were kept in England as a direct result. England now admits that even against hydrogen-filled ships, defense of antiaircraft guns, and airplanes made no appreciable headway against the airships, and that the only reason more damage was not done was because the Germans were too busy to send over more ships.

Mr. ANTHONY. Did not nearly all of the German airships come to grief before the war was over?

Maj. VAN NOSTRAND. A large percentage; yes, sir.

Mr. ANTHONY. Would not that vitally affect the future operation of airships?

Maj. VAN NOSTRAND. Those ships were filled with hydrogen. If they are filled with helium, no. The only way you could get a helium ship down would be to shoot the crew or put the engines out of commission, which would be something of a job. Those ships are filled with from 20 to 30 separate gas bags, like the watertight bulkheads of a ship. You puncture one and that does not affect the other. One of the ships of the Italian type, the pictures of which you have before you, came back from a raid over Austria with something like 100 bullet holes in the gas bags, with no appreciable loss of gas. That was due to the fact that the Austrians had no incendiary bullets.

FUNDS NECESSARY TO PROVIDE FOR OBSERVATION FACILITIES.

Mr. ANTHONY. I would like to have you tell us how much of these funds are necessary if we simply continue to provide the Army with observation facilities for the operation of troops in the field, and not providing for lighter-than-air ships for offensive or combat purposes?

Col. FULLER. Mr. Chairman, this program is based exactly on that proposition, and it is based on the use of four airship companies now approved by the War Department. This is distinctly a limited program to meet just the facts that you refer to, and the sum is large now by reason of the fact that heretofore effort has been concentrated along other lines. This is a very meager start, and most of the total cost involved goes into the establishment of these hangars. The initial expenditure, of course, will be serviceable for many years. Of that item there is \$3,180,000 for the purchase of nine of these smaller ships that are for observation purposes and for training. We have to have airship pilots. The country has never made a fair experimental start along these lines.

Mr. ANTHONY. Would it not be possible to drop out this \$9,000,000 appropriation in its entirety?

It is altogether for the improvements of stations, ships, and gas plants at landing fields, in addition to the plants that you now have, and you already have five plants in the country?

PROPOSED NEW PACIFIC COAST STATION.

Col. FULLER. Of the \$9,000,000 referred to, there are \$5,000,000 for lighter than air, and of that \$2,500,000 is for one new station only.

Mr. ANTHONY. Where is that new station?

Col. FULLER. On the Pacific coast, located at Mather Field, now owned by the Government.

Mr. ANTHONY. That is in addition to the field that you have there now?

Col. FULLER. Using the land owned by the Government.

Mr. ANTHONY. But you have one lighter-than-air field on the Pacific coast, have you not?

Col. FULLER. It is a balloon station, simply for the training of observers for the Army—not only the Air Service but the officers of the Artillery and other arms of the service who are to be trained as observers for the observation balloon only.

Referring to that item of the \$9,000,000, which is for the establishment of these facilities on the ground, that strikes right at the very foundation, the groundwork in any air development, for the essential training. This is an expenditure without which this work can not be carried on. I would like again to qualify that a little bit by saying that \$2,500,000, while we think it is highly necessary for this airship station on the Pacific coast, is not an essential part of doing the training that we are now doing. I want to make that plain, although we think that is a very essential thing.

The rest of that item is of the very greatest importance, looking at this thing broadly, as to the development of our requirements, and although we go slowly for the next few years, that is the first elementary requirement for the establishment of the physical plant from which you can proceed with training and development.

Mr. ANTHONY. But we are more greatly concerned in retaining what we have than we are with progressing with a lot of expensive developments at this time, and if it comes down—I want to ask you the question—if it comes down to the question of whether we shall go ahead with the airplane program or this balloon program, which one do you think ought to be cut first?

Col. FULLER. Assuming that cuts have to be made, I think that in determining where they could be made with the least injury, that we should go through some of the other items and take a small amount there. [Laughter.] In the total estimate here, Mr. Anthony, there is about \$43,000,000 for aircraft and its essential facilities. Speaking of cuts, we have had to cut from \$137,000,000 to this \$60,000,000.

Mr. CRAMTON. You have a constitutional privilege, Colonel, that you are not bound to incriminate yourself.

Col. FULLER. We do not claim credit for making that cut. We thought \$137,000,000 was necessary.

Mr. CRAMTON. I mean in the questions of the chairman.

Col. FULLER. Other portions of the War Department were charged with the duty of balancing this against the total of the appropriation. That, of course, is not our responsibility. We thought \$137,000,000 was necessary.

Mr. ANTHONY. It is perfectly obvious that you will not get the \$60,000,000 that you are asking for in this appropriation, and when it is trimmed down, the committee wants to do it as intelligently as it can, and would like to have the advice and suggestions of the Air Service as to where it can be done with the least injury.

Col. FULLER. When it comes to that stage, any cut that has to be made, we could give you the most valuable information by going through these various items. There are some items that should not be cut any.

ADVISABILITY OF DEVELOPING THE AIRSHIP.

Mr. ANTHONY. When you come right down to it, the continued development on this scale of the lighter than air is not as essential as the continued development of the airplane itself, is it?

Col. FULLER. I think they both go absolutely hand in hand, and I think that if we are confronted with that proposition we should remember that in the airship heretofore we have done nothing, practically, and in considering that we should realize that the development of the airship has proceeded in other countries to a very much greater degree, relatively, than has the heavier-than-air equipment. We had a special airplane problem before us during the war, and we concentrated our efforts on that, and we have neglected this very important airship field that is supplemental to the heavier than air. They both act hand in hand, one essential to the other.

Mr. ANTHONY. Major, will you put into the record a rather comprehensive statement of how you propose to expend this appropriation you are asking for, and how much you expended during the present year, and what it involved?

THE AIRSHIP AS A SUPPLY CARRIER.

Maj. VAN NOSTRAND. Yes, sir; that will be inserted in answer to a previous question.

May I add one thing that may have some bearing on the question of improvements in the Air Service? The use of the lighter-than-air ship as a supply carrier for the heavier-than-air ship has been demonstrated, so that advanced bases that would not be accessible by ordinary means of transportation would be supplied by lighter-than-air machines.

MONDAY, DECEMBER 20, 1920.

NEW LANGUAGE ASKED FOR.

Mr. ANTHONY. In taking up the language of the bill, we come down to the word "materials," which is new language. What is the necessity for that new language?

Col. FULLER. The purchase of fuel and lubricants.

Mr. ANTHONY. That formerly were purchased through the Quartermaster General's office, and now you intend to purchase them direct, at an estimated cost of \$3,500,000?

Col. FULLER. Yes, sir; it also perfects the language as limited by the other proviso in connection with raw materials that we can purchase.

Mr. ANTHONY. I notice you want to omit the word "lease." Why do you want to do that?

Col. FULLER. Those changes right there, down to the end of the page, including the words "at such plants," is the modification of the wording necessary to meet the situation where the Quartermaster General takes over the maintenance of all buildings and grounds except at experimental plants. That is the purpose of all the changes.

Mr. ANTHONY. Hereafter the Quartermaster General's Department will take care of the leases of ground?

Col. FULLER. Yes, sir; and the maintenance of the physical plants, except those at experimental stations.

Mr. ANTHONY. I notice you have some other new language, introducing the words "gas and sewerage." What is the reason for that? Are you going to do some construction?

Col. FULLER. That perfects that language.

Mr. ANTHONY. The authority was in there before?

Col. FULLER. Yes, sir.

Mr. ANTHONY. Why do you want to add the words "at such plants"?

Col. FULLER. That is limited to experimental plants, and we only deal with those experimental plants.

Mr. ANTHONY. There is no change on the next page?

Col. FULLER. We want to eliminate the words "within the District of Columbia and elsewhere."

Mr. ANTHONY. Why do you want to omit those words?

Col. FULLER. Heretofore we paid the civilian employees out of one sum, and that will be carried now in the legislative, executive, and judicial bill.

AIR SERVICE PRINTING PLANTS.

Mr. ANTHONY. At the top of page 24 there is reference to Air Service printing plants. How many Air Service printing plants do you maintain?

Col. FULLER. One at each experimental station.

Maj. HICKAM. There are only three, and those are small.

Mr. ANTHONY. How many were there before?

Maj. HICKAM. This year there are only three in operation. The one at Middletown was put out of operation.

Mr. ANTHONY. Where are the three remaining?

Maj. HICKAM. There is one small plant at McCook Field and one at Fort Omaha. I believe there are only two in operation now. There was another one, at Mitchell Field.

Mr. ANTHONY. You are going to maintain one at McCook Field and one at Fort Omaha; one pertaining to heavier-than-air-machines and the other to lighter-than-air machines?

Maj. HICKAM. Yes, sir.

Mr. ANTHONY. How large are those plants?

Maj. HICKAM. They are very small.

Mr. ANTHONY. Do you have linotype machines there?

Maj. HICKAM. No, sir; that work is contracted for.

Mr. ANTHONY. You only do small job work?

Maj. HICKAM. We do not do big jobs.

Col. FULLER. You will notice that there is also this language, on page 24, "as may be authorized in accordance with law." All our printing is checked over by the Joint Committee on Printing and is done with their permission.

Mr. ANTHONY. I notice that you have changed the language on page 24, just preceding the first proviso, where you want to substitute the word "aircraft" for the word "planes." The word "aircraft" is put in to cover all kinds of flying machines?

Col. FULLER. Yes, sir.

REMOVAL OF RESTRICTION UPON EXPENDITURES FOR RESEARCH, ETC.

Mr. ANTHONY. I notice you want to strike out this proviso:

Provided, That not less than \$5,250,000 thereof shall be expended for experimental and research work with airplanes or lighter-than-air craft and their equipment: *Provided further*, That not less than \$6,000,000 shall be expended for the production and purchase of new airplanes and their equipment, spare parts, and accessories.

Do you not want any limitation on that appropriation this year?

Col. FULLER. Everything which we could accomplish by the limitation, of course, could be accomplished without it.

Mr. ANTHONY. How much did you expend for this purpose out of the present year's appropriation, and how much will you expend by the end of the present fiscal year?

Col. FULLER. \$5,750,000.

Mr. ANTHONY. How much did you plan to expend out of next year's appropriation?

Col. FULLER. \$11,259,000.

Mr. ANTHONY. How much less than the amount you expended this year could you get along with?

Col. FULLER. Nothing.

Mr. ANTHONY. Well, you could get along if you had to?

Col. FULLER. Not to carry on the program which Col. Bane laid out on Saturday.

Mr. ANTHONY. But you have a program that calls for the expenditure of a vast amount of money. I want to get an expression as to what would be the least amount you could possibly get along with for that experimental work.

Col. FULLER. May I express it this way, Mr. Chairman. Everything in the estimate is an essential thing. We have got to do the same as any business man or individual would do; we have got to know what we have got to work on, and then it is going to take some study to apportion that. We think that out of the \$60,000,000 not a penny less than \$11,259,000 should be spent for experimental development.

Mr. ANTHONY. Say you get \$25,000,000. How much would you expend for experimental and research work?

Col. FULLER. \$25,000,000—you mean including the purchase of aircraft?

Mr. ANTHONY. Yes.

Col. FULLER. I guess we would have to go out of business.

Mr. ANTHONY. Oh, no; you would not have to go out of business.

Col. FULLER. Taking our present estimate, the current appropriation of \$33,000,000, and allowing about \$7,000,000 for the purchase of aircraft, a little less than \$6,000,000 for experimental development, our other expenditures are all consumed, absolutely required by the Air Service during this period when it is being formed and before it is on its feet ready to work.

Mr. ANTHONY. Then you regard the figures carried in this year's bill of \$5,250,000 as the minimum under which you could possibly operate for experimental research work, do you?

Col. FULLER. Yes, sir; that is, with any sort of a balanced program.

PRODUCTION OF NEW AIRCRAFT ENGINES AND EQUIPMENT.

Mr. ANTHONY. Now, in regard to the second proviso there—

Provided further, that not less than \$6,000,000 shall be expended for the production and purchase of new airplanes and their equipment, spare parts and accessories—

How much do you plan to spend under your estimates for these items?

Col. FULLER. For the production of new aircraft engines and accessories, \$22,720,355.

Col. FULLER. That includes lighter than air as well as heavier than air.

Mr. ANTHONY. How much did you actually expend for production and purchase of new airplanes and equipment this year?

Col. FULLER. Referring only to airplanes, this limitation is one for airplanes.

Mr. ANTHONY. How much did you actually expend this year out of the present appropriation?

Col. FULLER. The program calls for \$8,900,000, including—

Mr. ANTHONY (interposing). That is for all kinds?

Col. FULLER. Yes; the program for airplane construction for 1921 calls for \$6,945,288.

Mr. ANTHONY. How much for the lighter-than-air machines do you propose to expend out of the 1921 appropriation?

Maj. VAN NOSTRAND. Our proposition calls for \$864,000. There are some items omitted in that.

Mr. ANTHONY. If you are allowed to spend the same amount of money for airplanes for next year that you expended this year—that is, for new production, just what will that give you in the way of new planes?

Col. FULLER. That would require quite a little figuring to show the exact number of each kind of plane. The cost is different, and there is a necessity for considering the requirements of pursuit, bombardment, and so on. I can show you what we did with the same amount of money this year.

Mr. ANTHONY. Very well.

CONVERSION OF DE HAVILAND PLANES.

Col. FULLER. Converting 250 De Haviland 4; however, we consider that at the end of 1922 the De Haviland 4 will not be worth converting or safe to fly in any respect.

Mr. ANTHONY. Do you propose to convert any more during the next year?

Col. FULLER. This present year, yes, sir; but the planes which we buy from 1922 funds would be delivered in 1923.

Mr. ANTHONY. They will be entirely new construction?

Col. FULLER. Yes, sir; we will use these during the fiscal year 1922. We will purchase 200 pursuit planes this year, 25 messenger planes, 16 Martin bombers, 400 of the 300 Hispano-Suiza engines, and 50 Lawrence radial engines to go with the 25 messenger planes. I do not desire to leave the impression that we will duplicate this.

Mr. ANTHONY. What will be the probable cost of your pursuit planes for the next year; will it be greater or less than the present cost.

Col. FULLER. I have no information to indicate that there will be a change.

Col. ROBINS. I do not think they will be any less; I rather think they will be about the same as this year.

COST OF PURSUIT PLANES.

Mr. ANTHONY. What was the cost per plane for the pursuit plane?

Col. FULLER. \$12,000 for the pursuit plane.

Mr. ANTHONY. What was the cost of the bombing machines?

Col. FULLER. That does not include the engine.

Mr. ANTHONY. What is the cost, complete?

Col. FULLER. The engine costs \$8,000 more, making a total of \$20,000.

Mr. ANTHONY. That is the cheapest plane you buy, is it not?

Col. FULLER. It is as cheap as any we propose buying here for the service type of plane.

ALLOTMENT FOR DAMAGE CLAIMS.

(See p. 330.)

Mr. ANTHONY. How much money did you expend in the payment of claims for damages to persons and private property resulting from the operation of aircraft during the present year?

Col. FULLER. The amount which we have set aside for that purpose is \$10,000.

Mr. ANTHONY. How much have you actually expended out of it?

Col. FULLER. For this year about \$1,100 so far. They are still coming, however.

Gen. LORD. In 1920 they spent \$722.75.

Mr. Sisson. Is the fact that prices generally are falling, the price of labor and the price of material, going to affect the construction cost of these machines, and will the falling prices be reflected on your production, as it would in the production of anything else?

Col. FULLER. I am not expert on that part of the work.

Col. ROBINS. It would be hard to say at the present time whether it would or not. The fact that the airplane manufacturers to-day are so hard up for business that they are willing to cut their profits to a minimum may make the cost, even though we do have a reduction later on, the same as it is now. Of course, every one anticipates a reduction in the cost of labor. But it is hard to say what that would be.

Mr. Sisson. How much labor do you use when you have a plane constructed? Does it come to you in completed form, or do you do anything with it in assembling it? I suppose one concern will make the engine and another concern will make the other parts. You assemble them, do you?

Col. ROBINS. We usually send a completed engine to the factory where the plane is manufactured, where the engine is installed.

Mr. Sisson. So there is very little, if any, labor cost spent out of your appropriation for the purchase of airplanes? You pay that entirely to the manufacturers?

Col. ROBINS. Yes, sir; for the production.

RAW MATERIALS HELD ON HAND BY THE GOVERNMENT.

Mr. ANTHONY. Does the Government supply the raw materials that go into the production of the planes?

Col. ROBINS. Yes, sir; we do where we have them.

Mr. ANTHONY. Have you any considerable supply of spruce still on hand?

Col. ROBINS. Yes, sir.

Mr. ANTHONY. How much have you got, approximately?

Col. ROBINS. I would have to get you that figure.

Mr. ANTHONY. Will you put that in the record?

Col. ROBINS. Yes, sir.

<i>Fabrics.</i>	<i>Yards.</i>
Rubberized fabric-----	71,000
Unfinished balloon cloth, bleached and unbleached-----	4,050,000
Airplane fabric-----	726,000
Parachute silk-----	6,600

<i>Airplane lumber.</i>	<i>Board feet.</i>
Spruce-----	540,884
Oak-----	108,695
Pine-----	671,414
Ash-----	214,515
Birch-----	47,931
Mahogany-----	22,670
Poplar-----	41,455
Basswood-----	26,800
Fir-----	179,194
Hickory-----	18,103
Walnut-----	17,278

<i>Metals.</i>	<i>Pounds.</i>
Aluminum, all sizes and kinds-----	279,616
Babbitt metal-----	1,323
Brass, all sizes-----	184,931
Bronze, all sizes and kinds-----	21,187
Copper, all sizes-----	961,067
Drill, rod-----	9,228
Iron, all sizes and kinds-----	762,186
Lead, all sizes and kinds-----	12,023
Monell metal, all sizes-----	380
Manz metal, all sizes-----	2,334
Solder, all sizes-----	306,483
Steel, alloy, all sizes and kinds-----	67,653
Steel, cold rolled, all sizes-----	1,444,064
Steel, machinery, all sizes-----	52,174
Steel, tool, all sizes-----	45,683
Steel, tool, I. & S., all sizes and kinds-----	17,232
Steel tubing, all sizes-----	252,290
Terne plate, all sizes-----	25,319

Mr. ANTHONY. I wish you would also put in the record, if you can, a statement showing the supply of spruce and the supply of other materials that you have in quantity.

Col. ROBINS. We have only figured on that spruce that we need for repair purposes, and the director of sales has taken over the surplus of all other spruce, with the idea of disposing of it.

Mr. ANTHONY. It was our understanding that the Air Service was retaining quite a large quantity of lumber that goes into the manufacture of airplanes.

Col. ROBINS. Yes, sir.

Mr. ANTHONY. When you make a contract for airplanes, where you furnish these materials, you provide that the contractor shall reimburse you for the raw materials you furnish?

Col. ROBINS. Yes, sir; we do.

Mr. ANTHONY. You are just holding that in reserve?

Col. ROBINS. We are holding a certain amount of it in reserve, and a certain amount for repair purposes, where we overhaul our ships that have been in service.

ALLOTMENT FOR DAMAGE CLAIMS.

(See p. 328.)

Mr. ANTHONY. I want to ask you a question about the last proviso on page 24, "*Provided further*, That claims so settled and paid from the sum hereby appropriated shall not exceed in the aggregate the sum of \$150,000." If you are only paying out about \$1,000 a year for such claims, what is the necessity for that proviso?

Maj. FICKEL. We left that wording, "the sum of \$150,000," in there because it was in the original bill. There is no necessity for that large amount; \$10,000 is the amount in our estimate for that purpose. While there was only approximately \$700 spent this last year, we feel that it is better to be on the safe side in order to pay the damage claims promptly to avoid litigation.

Gen. LORD. That is only an authorization for the payment of claims of personal damage and private property, and it has been considered wise that the Air Service should have authority to settle claims of that description promptly.

SUBSCRIPTION TO FOREIGN AND PROFESSIONAL NEWSPAPERS.

Mr. ANTHONY. There is also a proviso which reads, "*Provided further*, That section 3648, Revised Statutes, shall not apply to subscriptions for foreign and professional newspapers and periodicals to be paid from this appropriation." What is the purpose of that, and what is the language of section 3648?

Maj. FICKEL. That is to permit the payment for service in advance of the rendering of the service.

Mr. ANTHONY. So you can pay these subscriptions in advance?

Maj. FICKEL. Yes, sir; because that is general business practice.

Mr. ANTHONY. Do you have one central agency for providing scientific literature for the entire Air Service?

Maj. FICKEL. Yes, sir; the information group handles all that.

Mr. ANTHONY. So you do not have any number of different stations or posts that do purchase those things?

Maj. HICKAM. No, sir.

TRANSLATORS.

Mr. CRAMTON. How many translators do you have in the Air Service?

Maj. HICKAM. We have only one; and a great deal of the translating is done by the Bureau of Military Intelligence Division, and some translating also is done abroad. We found that we have to keep this translator to look over the foreign magazines and extract from them, and also to correct translations of other translators, and I could use three or four if I could get them. These men have to speak

different languages and be familiar with aeronautical terms. Aeronautical terms compose a language in themselves, practically, and it is very difficult to get a man with a mechanical education who can also translate foreign languages in aeronautical terms.

Mr. ANTHONY. Where is that translator paid from?

Maj. HICKAM. He will be paid from the legislative bill next year.

Mr. ANTHONY. What does he get?

Maj. HICKAM. He gets \$1,800 now.

Mr. CRAMTON. Still, with that difficulty, you are able to get the bulk of your translating through the Bureau of Military Intelligence?

Mr. HICKAM. No, sir; I am not. We have a lot of valuable material that we have not gone over simply because the translator is kept busy on the more pressing things.

Mr. CRAMTON. Do you get a considerable amount of translations through the Bureau of Military Intelligence?

Maj. HICKAM. We get a great deal of extremely important information that must be disseminated as quickly as possible.

Mr. CRAMTON. Does it come to us with considerable delay, coming through the Bureau of Military Intelligence?

Maj. HICKAM. No, sir. That is now the only official channel we have through which to get information from the military services. We also keep in contact with the State Department and the Department of Commerce, and all other agencies. Their agents frequently send in reports, but that is more particularly in connection with commercial development. It is as essential to keep track of that as it is to keep track of the military development because that is the only way we can estimate the amount of aviation there is in any country and the amount of force they can bring to bear in the early part of a war. The development of commercial aviation has a great influence on the development of military aviation.

Mr. CRAMTON. At the rate that some of the other branches of the Army are going, I expect to see a new branch of the Army pretty soon made up of translators.

Maj. HICKAM. We could cut out some of the other things that are of a great deal of benefit to us. In the last war a lot of countries besides the United States had experience, particularly in aviation, and unless we are going to take advantage of their experience we are going to fall behind. At the present time their experience is just as available to us as our own if we make proper use of it. That is the work which my group is doing and it would be very unfortunate if our activities were curtailed, because the experience gained in this war in aeronautics is the one thing the whole world has needed.

Mr. CRAMTON. I do not think you are extravagant at all with only one translator.

Maj. HICKAM. I would like to be, but I do not get the chance.

Mr. Sisson. I imagine your statement simply illustrates that old principle of the human mind that when you find a man who is a good linguist, he is not a great instructor; so you do have trouble in finding men properly qualified for the work you want them to do.

Maj. HICKAM. Yes; I do. I have to watch this man very carefully to make him do just what we want done.

COOPERATION WITH NAVAL AVIATION.

Mr. ANTHONY. General, did you find the provision carried in this year's appropriation bill which attempts to distinguish the limits of the Army Air Service and the operations of the Naval Air Service has had any effect in determining the different spheres of operation?

Gen. MENOHER. The Army and the Navy are in more or less complete agreement on the functions of the two services. Everything that affects either service in any way is referred to the Aeronautical Board, of which I am a member and the chairman, for their consideration and O. K. particularly with reference to the duplication of functions.

Mr. ANTHONY. Are you meeting with success in eliminating those things in which the Army and the Navy are paralleling each other's work?

Gen. MENOHER. I think so; yes, sir. We have been over the estimates, both for the Army and for the Navy, only recently, and the report of the board was that in those estimates there was no duplication between the two services.

Mr. ANTHONY. Both services, the Army and the Navy, carry on experimental development and engineering work?

Gen. MENOHER. Yes, sir; but the Navy has no separate and distinct plant for the carrying on of their experimental work in connection with their other work in reference to the Navy.

Mr. ANTHONY. I thought they had a similar plant to the one the Army has at McCook Field?

Gen. MENOHER. They do not have in the same sense. They have a manufacturing plant in Philadelphia, but they do not have in their Philadelphia plant an organization such as we have at McCook Field.

Mr. ANTHONY. So they depend on your experimental plant?

Gen. MENOHER. In a great many things. Any results of any experiments that we have are always available for the use of the Navy.

Mr. ANTHONY. So the plant that the Navy maintains at Philadelphia is purely for manufacturing purposes?

Gen. MENOHER. That is what I understand.

Mr. ANTHONY. Have you looked into the question as to whether the Navy is able to manufacture its planes cheaper than it can purchase them from commercial firms?

Gen. MENOHER. I have not looked into that particular point.

Mr. ANTHONY. You have no idea what their costs are?

Gen. MENOHER. No, sir.

Mr. Sisson. It might be well to look into that to enable you to know more about the contracts they are making.

Col. FULLER. Take, for instance, their estimates for 1922. They count on making different types than those we have, but in the land plane they expect to get those through the Army, using the Army plane. Their principal activity is in connection with the flying boat and seaplane, which are entirely different craft from land planes.

Mr. ANTHONY. Every plane that the Navy is manufacturing today has pontoons on it, has it not, and is equipped especially for use on the water?

Col. FULLER. I can not make that definite statement. All I can give you is the general outline.

Gen. MENOHER. They are concerned particularly with that type, and now they are also concerned with a type of plane that can be carried aboard the carriers and that can be launched from the carriers.

Mr. ANTHONY. Where is the principal Navy training field?

Gen. MENOHER. At Pensacola. We have trained some of their pilots in our school.

Mr. ANTHONY. Have you water facilities at any of your main training plants?

Gen. MENOHER. We have at Langley Field.

Mr. ANTHONY. How about your Florida field?

Gen. MENOHER. That is not on any water. Chapman Field, which is inactive at the present time, has some water. There are also water facilities at San Diego and at Selfridge Field. Then for the coast defense we have water facilities at New York, Long Island, and at the Presidio, San Francisco, and at Corregidor Island.

PURCHASE AND PRODUCTION OF HYDROGEN GAS.

Mr. ANTHONY. Your estimate includes \$300,000 for purchase and \$82,000 for the production of hydrogen gas for the lighter-than-air balloons. That means that you are going into the manufacture of hydrogen as well as its purchase?

Gen. MENOHER. We have a number of plants for production.

Maj. VAN NOSTRAND. We have two plants now in operation, Mr. Chairman, where we are manufacturing hydrogen, but because of the isolation of some stations it is more economical to purchase hydrogen for some organizations than to maintain plants. The operation of a hydrogen plant—that is, its economical operation—is contingent upon a large supply being required. There is bound to be a large cost in overhead unless a large supply is needed.

Mr. ANTHONY. How much did you expend this year for the purchase and production of hydrogen?

Maj. VAN NOSTRAND. I have not those figures now, but this estimate for next year is based on the production this year, figured almost dollar for dollar.

Mr. ANTHONY. The same as this year?

Maj. VAN NOSTRAND. Yes, sir. I might say we are experimenting with considerable success on several new methods of producing hydrogen at greatly reduced cost. Those experiments are underway and we are meeting with great success.

Mr. ANTHONY. So far helium gas has not replaced hydrogen?

Maj. VAN NOSTRAND. It will not in peace-time operations; it is not desirable.

PRODUCTION OF SEMIRIGID DIRIGIBLES.

Mr. ANTHONY. Gen. Menoher, last year in the hearings before the subcommittee on Military Affairs you stated that the development of the lighter-than-air craft had been turned over to the Navy, and no estimate would be submitted for the construction of such types of

machines until a satisfactory type had been developed by the Navy. But now you are submitting estimates for hydrogen and helium and other purposes along that line, aggregating the amount of \$6,828,000. Have you abandoned the idea of permitting the Navy to handle that type of machines?

Gen. MENOHER. No, sir. The Navy is charged particularly with the development of the rigid dirigibles; we are not touching that and will not touch that at all. What we are going to develop in the way of large craft, or that we have an interest in, is the semirigid type, such as was developed by the Italians. We are not touching the rigid dirigibles.

Mr. CRAMTON. What is the distinction between those types?

Gen. MENOHER. We have the three types. We have the nonrigid type in which there is no frame to give shape to the bag; the shape is determined by the cut of the cloth and by the distention, just like the ordinary toy balloon. The semirigid type has a rigid frame to which the bag is attached on top. This also has quarters for the crew, etc. The shape of that is dependent upon the cut of the cloth and the shape of the frame. In the case of the rigid type we have the shape determined by a framework around which an envelope is stretched, and, then, inside are compartments in which are contained the balloons which hold the gas.

FOR CONSTRUCTION OF GAS PLANTS, HANGARS, AND REPAIR SHOPS.

(See p. 342.)

Mr. ANTHONY. You are estimating for some construction items, and have one item for the maintenance and repair of buildings and grounds at Air Service stations, amounting to \$172,000, and you have another item for the construction of gas plants, hangars, and repair shops, amounting to \$9,048,000. Why are these items estimated for by the Air Service instead of by the Quartermaster General?

Col. FULLER. The \$172,000 is for the maintenance of buildings and grounds at the McCook Field experiment station entirely, and there is no other item for a similar purpose in the estimate, that being a proper charge against the Air Service. The item of \$9,048,000 is for gas plants, hangars, and machine shops.

Mr. ANTHONY. For the lighter-than-air machines?

Col. FULLER. No, sir. With your permission, I would like to go into the details of that. That covers things which are by their general nature peculiar to the Air Service and which are required, or their counterpart is required, by the Air Service tactical units operating in the field. For instance, hangars are considered equipment, and so determined by the comptroller. They are essential in the field for the normal tactical operation of these units. These gas plants, many of them covered here, are simply portable generating gas plants that accompany the lighter-than-air equipment into the field. Those things being regarded in the light of essential equipment, and in many particulars actually determining the total program of activity that the Air Service will carry on, we consider that in the presentation of these estimates we should come here with these items of equipment in the Air Service part of this estimate.

CONSTRUCTION OF GAS PLANTS, HANGARS, AND REPAIR SHOPS.

[Item 0406.601.]

Recapitulation :

Scott Field, hangar, gas plant, gas holder-----	\$2, 500. 000
Pacific coast station, hangar, etc-----	1, 345. 000
Brooks Field, hangar extension, gas plant, and holder-----	1, 300. 000
Ross Field, hangar, cylinder storage, and gas house-----	190, 000
Lee Hall, gas house-----	15, 000
Silicon gas plants to complete equipment of units-----	140, 000
Camp Bragg, balloon hangar, and gas house-----	53, 000
Camp Benning, balloon hangar, and gas house-----	53, 000
Camp Knox, gas house-----	8, 000
7 corps areas (Devens, Dix, Jackson, Sherman, Grant, Funston, and Lewis), balloon hangar and gas house, at \$53,000-----	371, 000
Mitchel Field, 3 airplanes hangars-----	300, 000
Funston, Jackson, Sherman, Devens, Leavenworth (4 hangars at each place), at \$40,000-----	200, 000
Camp Lewis, 16 hangars-----	160, 000
Aviation repair depot, Middletown, 2 hangars-----	137, 000
Aviation repair depot, Fairfield, 2 hangars-----	137, 000
Aviation repair depot, San Antonio, 2 hangars-----	274, 000
Rockwell Field, 4 hangars-----	400, 000
Eight reserve training centers at \$125,000-----	1, 000, 000
Gasoline and oil apparatus for stations-----	465, 000
	<hr/>
	9, 048, 000

Mr. ANTHONY. But it is all new construction, is it not?

Col. FULLER. When it comes to actually doing the work, wherever construction is involved, the Quartermaster General does it. No, sir; that is not all new construction.

REPAIR AND MAINTENANCE OF BUILDINGS, M'COOK FIELD, DAYTON, OHIO.

(See p. 337.)

Mr. ANTHONY. Take this item of \$172,000 for maintenance and repair of buildings. You say it is all going to be expended at McCook Field. In view of the fact that it was stated on Saturday that the lease on McCook Field is liable to be terminated in the near future—

Col. FULLER (interposing). In two years.

Mr. ANTHONY. Why do you want to spend that money on repairs at that place?

Col. FULLER. That is the normal maintenance of those structures, to keep the proposition going during this coming fiscal year.

Mr. ANTHONY. When a subcommittee of the House of Representatives visited McCook Field one of your main buildings there had already undergone extensive repairs and looked as though it might need further repairs. Do you contemplate spending any money on that building, which was considered to be in a precarious condition?

Col. FULLER. I am sorry this question did not come up while Col. Bane was here the other day. I will have to look that up.

COST OF LIGHT AND POWER.

For buildings and grounds the amount is \$130,000; for water, \$4,000; for light and power \$38,000.

Mr. ANTHONY. For light and power \$38,000?

Col. FULLER. Yes, sir.

Mr. ANTHONY. That means you purchase your electric current, then, altogether from the city?

Col. FULLER. I understand so.

Mr. ANTHONY. That is rather a large bill for electric current. What do you pay for electricity out there?

Col. FULLER. I will have to put that in the record.

STATEMENT OF ELECTRICITY TO BE USED BY THE ENGINEERING DIVISION FOR THE FISCAL YEAR 1922.

The average amount of electricity for one month for the past fiscal year was 112,000 kilowatt hours, at a price of 2 cents per kilowatt hour.

It is anticipated that there will be an increase in the rate to 2½ cents per kilowatt hour.

It is also anticipated that there will be an increase to approximately 126,500 kilowatt hours per month for the next fiscal year, because of the expected increase in the number of metal-working machines required in the construction of metal airplanes. This will give a total amount of kilowatt hours for the fiscal year of 1,520,000, which, at the rate of 2½ cents per kilowatt hour, will equal \$38,000.

Mr. Chairman, on this item of \$9,048,000 I would like to say something as to how it is made up. There is an amount for Scott Field hangar and gas plant, \$2,500,000.

HANGAR AND GAS PLANT, SCOTT FIELD, MISSOURI.

Mr. ANTHONY. Where is Scott Field?

Col. FULLER. That is near St. Louis; it is a field owned by the Government. That is for the purpose of enabling us to establish the absolutely essential facilities for operating the experimental station.

Mr. ANTHONY. For what?

Col. FULLER. For lighter-than-air. There are many reasons why we can do nothing at Omaha. It is a small reservation right in the city, and additional land would be most expensive, and the War Department has other uses for it.

Mr. ANTHONY. That means you want to establish another experimental development station for lighter-than-air, the same as you have at McCook Field for heavier-than-air machines?

Col. FULLER. The counterpart of that, but much less extensive. As I explained at the last hearing, on the lighter-than-air end of it we have postponed even making a start.

Mr. ANTHONY. That involves another very expensive plant, does it not, the creation of a new plant?

Col. FULLER. No, sir; it is not to be measured by the other plants, by any means.

Mr. ANTHONY. You start with \$2,000,000, and that is rather a good start.

Col. FULLER. The big expense is in the hangar. Those hangars are expensive, but the hangar itself is the whole shipyard in itself, with the gas plant and a few facilities of that sort. It is not like building up an experimental development plant for heavier-than-air work.

Mr. ANTHONY. Why can you not carry on some of these experiments at some of the balloon stations you now have without building an entirely new one?

Col. FULLER. Scott Field has been set aside as a balloon station for this purpose. The only place where we have land that would do for that purpose is very poorly located and from every point of view and expense.

Mr. ANTHONY. What is the matter with Brooks Field? You have land there and a station for lighter-than-air machines, have you not?

Col. FULLER. Yes, sir.

Gen. MENOHER. There could be no duplication in functions there. That is an operating station for the Mexican border, and we have the land at both places. We have facilities at Scott Field that we have at all the fields. The important proposition is that it is centrally located, and we should have some lighter-than-air station at about the geographical center of the United States. Omaha is not a good place on account of the winds. That has been demonstrated absolutely, and the space is too small, also we need it for other purposes.

Mr. ANTHONY. If Congress should not approve of the expenditure of that vast amount of money at this time for that purpose, would it be necessary to put a proviso in the bill that you shall not expend any money for that purpose, or would you be guided by our failure to include this item in the bill?

Gen. MENOHER. Of course, we would be guided eventually in all matters by the amount of the appropriation.

Mr. ANTHONY. It would not be your purpose to take it out of some other part of the appropriation?

Gen. MENOHER. Not unless the bill was so drawn that we could do that.

REPAIR AND MAINTENANCE OF BUILDINGS, M'COOK FIELD, DAYTON, OHIO.

(See p. 335.)

Mr. Sisson. I was going to ask a few questions as to the matter of business judgment in connection with these items. Take, for instance, the \$172,000 you propose to expend at McCook Field. That is a temporary affair and will probably have to be given up within the course of two years?

Gen. MENOHER. Yes, sir.

Mr. Sisson. What is the necessity of waiting until the last minute to find another place? Why not look a little in advance for another place and quit spending money on that, but go ahead and develop some field that belong to the Government?

Gen. MENOHER. We have been looking for a place.

Mr. Sisson. There is no immediate pressure for the maintenance of McCook Field, is there? What is the immediate pressure? If we had a war, that would be a different thing. But there is a piece of property on which you propose to expend \$172,000 on this item, and I do not know how much more may be spent there in various ways on other items.

Gen. MENOHER. If we could actually move that plant, it would be different. But we have no authorization to move it and we have no place to put it.

Mr. Sisson. What about the land at St. Louis? Is that not available?

Gen. MENOHER. That is too far. The experimental plant must be in fairly close touch with Washington, as long as the central office remains here. The experimental station is too far away as it is. We need a location for the experimental plant somewhere in the East, not too close to the seaboard.

Mr. ANTHONY. Your original idea was to locate it at Langley Field?

Gen. MENOHER. That was not my original idea.

Mr. ANTHONY. And there was a good deal of money spent in making a start. Has that money been wasted?

Gen. MENOHER. That money has not been wasted, because we have had that as an operating field for use in connection with seacoast defenses and it is our main school.

PROPOSED ACQUISITION OF THE DAYTON-WRIGHT PLANT.

Mr. ANTHONY. Do you think a mistake was made, General, in the failure of Congress to acquire the Dayton-Wright plant, as was proposed last year?

Gen. MENOHER. Yes, sir; I think we have lost about three or four million dollars on that. That plant was really made to order for us, so to speak. We could not have devised a much better plant if we had gone about it deliberately, and the Government had spent a considerable amount on amortization.

Mr. ANTHONY. I would like to put in the record a statement that the principal reason why the purchase of that plant was defeated on the floor of the House last year was due to the fact that your estimate called for a valuation of the land to be purchased of about \$300,000, and according to the statements that were made on the floor that land had an assessed value of only \$80 an acre, and that prejudiced the House against the purchase. But I have had letters since that time from officials out there that showed that the State of Ohio had not made any land valuation for 10 years, showing that we were in error in going on the theory, or the House was in error in going on the theory, that the land was assessed at only \$80 an acre, and that governed the value of it.

Mr. Sisson. I do not think the committee has any desire to injure this service, but I must confess that I do not take very readily to the expenditure of any money on a plant that you are going to abandon within two years.

Gen. MENOHER. If we abandon it we can not expend the money.

Mr. Sisson. You will have, if this item is granted, \$172,000 available during the fiscal year covered by this bill, and, of course, you will spend that much money, will you not?

Gen. MENOHER. Perhaps. But there is only \$130,000 estimated for buildings and grounds.

MEDICAL EXPERIMENTAL RESEARCH.

Mr. ANTHONY. I would like to go on with the item for medical experimental research, and we will hear Col. Truby on that item.

Colonel, you ask for \$18,000 under this head. Why is this estimated for by the Air Service instead of by the Medical Department?

Col. TRUBY. This plant was established by the Air Service during the war, and the Air Service owns the equipment, but there has been no reason why it could not be transferred to the Medical Department, although it is operated under the Chief of the Air Service, under my direction. This arrangement has the approval of the Surgeon General.

Mr. ANTHONY. You are a medical officer?

Col. TRUBY. Yes, sir.

PERSONNEL.

Mr. ANTHONY. How much of a force have you in that work?

Col. TRUBY. We have 5 or 6 medical officers and about 18 employees of all classes.

Mr. ANTHONY. How much have you expended during this present year for medical research?

Col. TRUBY. For the work there?

Mr. ANTHONY. Yes, sir.

Col. TRUBY. I think we have expended practically all of it.

Mr. ANTHONY. What was the amount?

Col. TRUBY. The amount was \$18,000 for maintenance and equipment and \$32,000 for personnel. This estimate is the same as last year.

EFFECT OF PHYSICAL DISABILITIES.

Mr. ANTHONY. Have you not practically investigated and gone over all the field of medical research as it relates to flying in the air which it is practicable to go over during the years we were in the war and the two years since?

Col. TRUBY. No, sir. In my opinion, this work is just started. Of course, this research laboratory is misnamed. We have several activities there. It is also a school for the training of flight surgeons, and many of the special physical examinations for flying as well as the tests for altitude flying are made there.

Mr. ANTHONY. For instance, you determine that a man who has such a degree of blood pressure or such a heart movement is not a proper man to fly in the air?

Col. TRUBY. Yes, sir.

Mr. ANTHONY. And yet we find that officers who have those ailments continue to fly and make pretty good fliers.

Col. TRUBY. Yes; but during the war——

Mr. ANTHONY (interposing). In fact, officers who have been placed on the retired list have gone back into the Air Service and become very good fliers.

Col. TRUBY. There are very few of that class. During the war, in this country, we had about 135 deaths from crashes in the 1,260 recorded crashes. A great many of those we know were due to physical defects of the pilot. I think anyone can see that it is foolish for a man to fly who has any physical disability. He is liable to destroy Government property and risk his own life and the life of any passenger who may be with him. This appropriation, I am sure, will save a

number of lives, and not only that, it will save thousands of dollars worth of property. We know that.

Mr. ANTHONY. Your argument is that it takes a perfectly normal man, physically, to fly?

Col. TRUBY. It certainly does, especially in the matter of vision or in connection with the condition of his heart, where he is apt to collapse, or in connection with any of his special senses.

Mr. ANTHONY. Have your researches shown that many of the crashes or accidents in the air have been due to heart failure or the physical collapse of the operator in the air?

Col. TRUBY. We know a number—I can not give you the exact figures. Many crashes have been due to physical defects.

Mr. ANTHONY. How do you know that?

Col. TRUBY. In the first place, we know by the physical examination if he has a physical defect. The flight surgeon and flying authorities at the field examine and report on every crash, and usually they can form a very accurate idea as to what caused the crash. Many crashes have certainly been caused by physical defects of the pilot.

We have a splendid plant at Mineola, and from the literature published you would be able to get a good idea of the importance of the work.

Mr. ANTHONY. It occurred to me that men who were not entirely normal, whom you might call eccentrics, sometimes make the best specialists.

Col. TRUBY. They all fly if permitted to do so, and they nearly all come to grief.

Mr. Sisson. I do not know so much about that. Medicine, at best, is just a genuine good guess, and some people are better guessers than others. You will find many times that some member of the medical profession will tell a man that he can not be given a life-insurance policy, and yet that man will outlive all the medical doctors and life-insurance officials who turned him down. You will find a man who by virtue of some form of heart trouble ought not to fly but who, nevertheless, does fly and nothing happens to him, and many times he outlives the fliers who are in perfect physical condition. It is a question of guessing on the human system. And when I say this I am telling you something that reflects on my ancestors, because nearly all of them were doctors.

As long as I was in a doctor's home I did not take any medicine. As soon as I got out and sent for a doctor he had to give me a pill to justify his fee.

This is largely an experiment as to which one of these men is going to die when he goes up. Take, for instance, the man who is perfectly normal and who goes up on Pike's Peak. He falls down.

Mr. CRAMTON. The beauty of it is, Colonel, you had your theory when he went up and when he comes down nobody can determine it; the evidence is all destroyed, so the theory is, of course, proven. The plane is wrecked and the man is wrecked, and you can not ascertain any flaw in the machine.

Col. TRUBY. We have an apparatus at Mineola by which we can positively demonstrate that a man can go to a certain height and no higher. We can prove that absolutely, because we take the oxygen.

from the air, so he is at a corresponding height in the air. We find that some men will be able to go up 10,000 feet and some will go up to 20,000 feet, but every time you put a 10,000-foot man beyond that height he goes down or collapses. It is not a question of guessing; it is an actual demonstration.

Mr. CRAMTON. Have not the Italians a kindred organization?

Col. TRUBY. They have, but I think our plant is far ahead of anything else in the world.

Mr. CRAMTON. Did they ever run Gabriel D'Annunzio through that plant?

Col. TRUBY. I do not know about that.

Mr. CRAMTON. He is a man pretty well along in years, and it is a question whether he would pass through that plant.

Col. TRUBY. I do not know. We do investigate the mental condition, and we can not always state that a man of highstrung nervous temperament will not make a good flier; we know, however, if he has certain mental defects he should never pilot a ship. At this laboratory we have a flight surgeons' school, where we train medical officers for duty at flying fields. Whenever a flight surgeon is taken away from one of the fields the fliers themselves demand that we send another one to replace him. They have made good and we know it. It is their business to keep in close touch with the fliers, and they know the flying game. If a man is in bad mental condition or physically defective he is taken off flying.

Mr. ANTHONY. Do you eliminate men from flying on the ground that they are mentally unfit?

Col. TRUBY. We do.

Mr. ANTHONY. I ask that question because it has been my observation that a great many of the best officers in the Army are more or less temperamental, and if you eliminate them on that ground——

Gen. MENOHER. Not necessarily temperamentally unfitted, but perhaps temperamental. What you say applies to the individual, and while it may be that one man has some physical defect and may have other senses that are more acute than the normal, that applies to the individual. But taking the whole force, it is absolutely necessary, to my mind, that we have this medical work go on. Sending a man into the air who has some defect that is recognized by the medical profession as a dangerous one is like sending a plane into the air that you know has some defect. It may come down all right. You may take a plane into the air with one of its struts broken and get away with it, but the chances are very much increased that that plane is going to have trouble in the air, and the same thing is true with the fliers.

Mr. Sisson. If I thought that could be done my confidence in the practice of medicine would be increased a thousand per cent.

Gen. MENOHER. I know right down at the bottom of it most doctors admit that a good proportion of medical practice is pure buncombe; you must take into consideration the psychological phase of it. What you say about living in a family of doctors and never being sick——

Mr. Sisson (interposing). I did not say I was never sick. I did not take any medicine.

Gen. MENOHER. The Chinese doctor is hired to keep a man well.

Mr. Sisson. I believe in that Chinese system; that is scientific.

Gen. MENOHER. Yes; and the Chinese doctor is not paid unless the patient is well.

Mr. ANTHONY. Does the Medical Department of the Army do any of this class of work?

Col. TRUBY. Yes; our greatest work is in the prevention of disease. This Air Service work is an entirely new medical branch. Of course, I am on the staff of the Chief of the Air Service.

Mr. ANTHONY. There are medical officers detailed at all of the aviation fields.

Col. TRUBY. Yes; we have the usual proportion of medical officers.

Mr. ANTHONY. Why can not the medical officers attached to the various fields determine the physical fitness of men to fly?

Col. TRUBY. It is impossible to do that. This work has developed into a real specialty. There are so many things to be considered along entirely new lines of medical work, that it has been found necessary to give special training and instruction to the medical officers who do this work.

Mr. Sisson. I do not want you to understand that these questions would indicate that we have any lack of confidence in the work you are doing, because if you exercise this caution and can save a human life occasionally it is, of course, worth the money that is spent for it.

Col. TRUBY. I can positively state that our medical work has saved many lives and that we will continue to save lives if we are permitted to carry on this work. If we save one life it will justify the small appropriation of \$18,000 for equipment and maintenance of the laboratory, and \$32,740 for civilian personnel.

FOR CONSTRUCTION OF GAS PLANTS, HANGARS, AND REPAIR SHOPS.

(See p. 334.)

Mr. ANTHONY. Col. Fuller, you did not finish explaining the items in the \$9,000,000 for gas plants, repair shops, etc.

Col. FULLER. In addition to the \$2,500,000 for the experiment station at Scott Field, we have to provide hangars, and there are also included various other items. Then that also provides for a Pacific coast airship station with hangars, etc., amounting to \$1,345,000; Brooks Field, hangar extension, gas plant, and holder, \$1,300,000; Ross Field, hangar, cylinder storage, and gas house, \$490,000; L. Hall, gas house, \$15,000; silicon gas generating plants to complete the equipment of the units, etc., \$140,000; other items to enable the Air Service to act with the remainder of the Army at certain of its divisional camps and training centers: Camp Bragg, balloon hangar and gas house, \$53,000; Camp Benning, balloon hangar and gas house, \$53,000; Camp Knox, gas house, \$8,000.

Mr. ANTHONY. Right there. Colonel, at these Artillery firing centers, why can you not use the temporary fields and outfits for aviation that we now have for this purpose without going into this expenditure for permanent plants.

Col. FULLER. A balloon hangar will pay for itself in the saving of balloons in a short time.

Mr. ANTHONY. You only have intensive firing on those fields at certain periods of the year. Why can't you take some of these portable outfits there?

Col. FULLER. At these firing centers we expect that the services of the balloon companies will be required throughout the year. The question of training is involved, not merely to give them the service of that firing, but to train Artillery officers and Infantry officers just as the Artillery need not fire all the time to continue their training.

Mr. ANTHONY. I understand that.

Col. FULLER. Then, this also provides for the seven corps areas at Camp Devens, Camp Dix, Camp Jackson, Camp Sherman, Camp Grant, Camp Funston, and Camp Lewis, balloon hangars and gas houses, amounting to \$371,000, in order to permit the Air Service to participate in the training of the rest of the Army at these camps. Then, there is also provided at Mitchel Field, three airplane hangars, at \$300,000. I understand that there has at times been equipment out in the open there in the last few months on account of the lack of facilities for housing.

Mr. SISSON. Where is that?

Col. FULLER. Mitchel Field, on Long Island, N. Y.

Mr. ANTHONY. At the close of the war you had on hand a great amount of hangar material. Has that been used up?

Col. FULLER. We contemplate here using some of it. For instance, at Camp Lewis, we propose to put up 16 of these expeditionary hangars, which cost \$10,000 to put one of them up, erect it, and put the floor in. We are working that equipment everywhere throughout our whole operations.

Gen. MENOHER. We have a number of expeditionary hangars that will not be erected, but they are all available.

Mr. ANTHONY. They are of steel?

Gen. MENOHER. Of steel frame, with corrugated steel and iron sheathing and roofing.

Col. FULLER. This also provides at Camp Funston, Camp Jackson, Camp Sherman, Camp Devens, and Fort Leavenworth four hangars at each place, \$40,000 at each place, a total of \$200,000. That is a question of merely erecting the hangars of which you speak. Then, there is also an item for Camp Lewis of \$160,000. Then, there is also provision for the aviation general repair depot at Middletown, with two hangars, \$137,000; the aviation general repair depot at Fairfield with two hangars, \$137,000; the aviation general repair depot at San Antonio with hangars, \$274,000; the Rockwell Field, four hangars, \$100,000 each. Those items are primarily to enable the consolidation of the repair depots with the supply depots and that will result in a great deal of economy.

Gen. MENOHER. We have certain supply depots and we want repair depots at the same places, so that they can concentrate and save freight.

FACILITIES FOR CONTINUED FLYING OF RESERVE OFFICERS.

Col. FULLER. That item also includes an estimate for facilities at eight places for the continued flying of the reserve officers. \$1,000,000, as follows:

Boston, \$133,750; Philadelphia, \$168,750; Baltimore, \$133,750; the same at Chicago; and the same at St. Paul. For Denver, Colo., \$63,750; for Kansas City, \$98,750; and for Seattle, \$133,750.

GASOLINE AND OIL APPARATUS FOR STATIONS.

The final item in this \$9,000,000 is for gasoline and oil apparatus for stations, \$465,000, a proper system of gasoline storage and service at the stations which we have.

ORDNANCE EQUIPMENT FOR AIRCRAFT.

Mr. ANTHONY. You have an item for ordnance equipment for aircraft, and that includes an item of \$60,000 under this heading. Why is that estimated for by the Air Service instead of by the Ordnance Department?

Col. FULLER. There is a very carefully worked out scheme of division of responsibility between the Ordnance Department and the Air Service, and this covers that part which pertains to the Air Service. Take a machine gun, with the propeller synchronized with the movements of the engine, firing through the propeller. There is a certain point there where the Ordnance Department turns over to the Air Service certain parts, and the Air Service must build the facilities right into the plane.

Mr. ANTHONY. Is this item for the purchase of guns, or is it for carrying on the experiment station and development of the synchronizing device?

Col. FULLER. No, sir. It includes sights for machine guns, \$20,000; wind vane sights and rings, \$3,250; ring sights and posts, \$3,745; gunnery and target material for carrying on gunnery exercises, more than half—

Mr. ANTHONY (interposing). So it is not for the purchase of the guns themselves, but for the purchase of accessories?

Col. FULLER. Those things which are actually a part of the plane and material for carrying on target practice, most of it for target practice.

Gen. MENOHER. That line of demarcation is being worked out now so there will be a definite line between the functions of the Ordnance Department and those of the Air Service in the matter of armor and armament.

Mr. Sisson. They furnish the gun?

Gen. MENOHER. They furnish the gun; we will not touch that.

Mr. Sisson. You have nothing to do with the preparation, the manufacture, or the plan of the gun, but you fix it—

Gen. MENOHER (interposing). We have consultations with the Ordnance Department and all that, because the gun has to be devised for the airplane.

Mr. Sisson. The work is actually done in the Ordnance Department. In other words, you think they work out your airplanes so that the propeller blades will synchronize with the shot from the gun?

Gen. MENOHER. We have an ordnance section at McCook Field working with the people there so that they can coordinate in the matter of installation.

RADIO EQUIPMENT FOR AIRCRAFT.

Mr. ANTHONY. You have an estimate under this item for radio equipment for aircraft, and for that you are asking \$30,000. Why

is this estimated for by the Air Service instead of by the Signal Corps?

Col. FULLER. That is experimental. That covers the airplane end with a special device and some radio control.

Mr. ANTHONY. Are you carrying on entirely in the Air Service the work of communication between airplanes in the air and between the airplanes in the air and the ground?

Col. FULLER. That is all coordinated with the Signal Corps.

Gen. MENOHER. The Signal Corps is charged with the production and supply of radio, and we are charged with the installation, maintenance, and operation of it. That is a very clear-cut distinction.

Mr. ANTHONY. This item takes care of that?

Col. FULLER. It takes care of the installation, maintenance, and operation as distinguished from the research work.

Mr. ANTHONY. Have you made any appreciable improvement in telephone communication through the air?

Gen. MENOHER. I think so; yes, sir.

Mr. ANTHONY. You had that during the war, but found it would not work under actual battle conditions?

Col. FULLER. But they have made a great many improvements recently.

Mr. ANTHONY. Do you think it would work now under such conditions?

Gen. MENOHER. I think so. Of course, it is a difficult proposition because the other fellow is shooting at you, and that human element must come in.

Mr. Sisson. Do you have this radio communication so developed that you can put the wireless apparatus on the plane?

Gen. MENOHER. Yes, sir. In connection with that, speaking of the forest patrol, during the last year we flew 478,000 miles, and those planes were in radio communication with the central stations at all times. Fires were reported by radio from the plane as soon as discovered, and we have it on record that reports of fires were received at the station on the ground and help was on the way before the plane returned to the ground.

Mr. Sisson. I have understood, however, that all of this proved a complete failure in all the battles of this war where they attempted to use it. Why that was I do not know.

Col. FECHET. Practically all the artillery work was done by radio, and was very successful.

Mr. Sisson. I am talking about the radio on the plane.

Col. FECHET. That was with the radio on the plane.

Gen. MENOHER. You refer to the radio telephone?

Col. FECHET. Are you talking about the wireless telephone?

Mr. Sisson. Yes.

Col. FECHET. That had not been developed during the war. At that time it was not more than an experiment.

Mr. ANTHONY. During the war it was emphatically stated by the Signal Corps to committees of Congress that they had worked out such improvements that they were able to do this and it was going to accomplish wonders under battle conditions. Was that actually done in service during the war?

Mr. Sisson. That was my inquiry.

Col. FECHET. The Signal Corps did develop a wireless telephone which would operate from 5 to 15 miles, but the machine is so delicate and requires such expert mechanics to keep it in condition that we found, on the border where I was in charge of the Air Service, that we could not keep those machines in condition because of their delicacy. But that is being rapidly overcome, and we have a machine that not only is good at 15 miles but for longer distances. But it is not the safe and reliable machine that the radio telegraph is: absolutely not.

PRINTING.

Mr. ANTHONY. You are asking for a total of \$111,000 for printing. It was stated a few moments ago that the Air Service has two printing plants. This entire \$111,000 is for the operation of those printing plants?

Maj. HICKAM. No, sir; it is not. In fact, the great bulk of the printing is done in the Government Printing Office. We do everything in the Government Printing Office that we can do efficiently and with economy. There are some things that can not be done in the Government Printing Office.

Mr. ANTHONY. How much have you spent and how much do you propose to spend during the present year for this purpose?

Maj. HICKAM. At McCook Field we have already spent \$15,000 and have asked for \$10,000 more at McCook Field alone. Due to the fact that we have not gotten started at Omaha, we do not expend money there, but we hope to next year. I can tell you just what is done at McCook Field.

Mr. ANTHONY. I want to find out how much, in the aggregate, you have expended for printing during the year.

Maj. HICKAM. Ninety-seven thousand dollars.

Mr. ANTHONY. What does that comprise, the bulk of that printing? Do you need textbooks?

Maj. HICKAM. Textbooks, information circulars, specifications, all things of that kind. Each man has his own specialty. We have 12 highly specialized schools in the Air Service. Textbooks and manuals must be provided for them, and such texts are not now in existence. We also have to keep in touch with the rest of the Army. Practically all the knowledge that we had at the end of the war was in the heads of the officers. We are trying to get that out so that we can print it and circulate it, so that new officers can study the business and profit by the experience gained in the war, and at the same time we can get a certain amount of this information to other individuals, such as the Reserve, who must have it. There is a great demand in the other service schools for Air Service information.

Mr. ANTHONY. If you can print it at these two printing plants cheaper than at the Government Printing Office, I suppose you do so there?

Maj. HICKAM. No, sir; the price has nothing to do with it. We can do certain work at these stations cheaper than in the Government Printing Office, but because of existing legislation it is necessary to print everything in the Government Printing Office unless we have special permission of the Joint Committee on Printing to do certain

work outside, and I have to justify that before the Joint Committee on Printing.

Mr. Sisson. What is it that can not be done in the Government Printing Office that you want done?

Maj. HICKAM. At McCook Field we have a lot of very technical information. That is so technical and the different formulae which are used are so unusual that it must be proof read by the man who gets it out. The last thing we did out there the typesetter struck four times on it, and the man who prepared the document had to stay with him in the office to get it set up properly. One or two mistakes in a document of that kind makes the whole thing worthless.

Mr. Sisson. How much would it be delayed by having it sent to the Government Printing Office. They can do that sort of thing in the Government Printing Office; make no mistake about that. The proof reading and correction of the proof would, of necessity, have to be done by the man who made it. How much would that delay you by having it sent to the Government Printing Office?

Maj. HICKAM. At least three weeks in every case.

Mr. Sisson. How long does it take to check up your proof when you print at the printing plant? It takes some time?

Maj. HICKAM. It takes some time; yes, sir. Time for each proof reading.

Mr. Sisson. But the mail trip between Dayton and Washington is only about two days.

Maj. HICKAM. Mr. Sisson, we have done our best to work with the Government Printing Office. We have effected many improvements there in getting our work out, and they are getting it out for us in a very satisfactory manner, but some of this work they do not want to handle.

Mr. Sisson. They must have the technical proof readers required to correct some of the highly technical printing you want done. Most of their proof readers are about the best in the world.

Maj. HICKAM. A great deal of our work is done there. We would prefer to have it all done there, because it is simpler to handle, but because of the delay in getting out some of the technical work we do that at our own plant.

Mr. Sisson. Is that largely textbooks?

Maj. HICKAM. Yes, sir; and also specifications. In our last inventory we had 186,000 different articles, and we had specifications on each one. As the result of our experiments at McCook Field many of these specifications must be changed and gotten out immediately for the manufacturers and the engineers who are working on them. We find the delay which occurs in sending them to the Government Printing Office is very serious. In spite of their best effort, which, by the way, we always get.

Mr. Sisson. Of course, in time of war, that delay would be very dangerous, too.

Maj. HICKAM. Well, it is dangerous in peace times, because our development is proceeding, in the United States particularly, a great deal more rapidly than it was in war time because we have so much more knowledge and many more phases to work on.

I might say in this connection that I have justified before the Joint Committee on Printing more than we are asking for each of

the last three years, and I expect to go before them on this situation. This is really a small estimate for printing, because we have not the personnel to get out the material which should be printed. A great deal more must be done before we get an adequate supply of literature.

OFFICE EQUIPMENT.

Mr. ANTHONY. Under the head of office equipment you are asking for \$97,660. How much do you expect to expend during the next year for that purpose?

Maj. FICKEL. We were allowed \$50,000 for expenditures this year under that heading, and we have transferred some of the items from another heading for next year. We carried miscellaneous supplies and equipment, and we also have that heading next year, but we have transferred some of the supplies from that heading.

Mr. ANTHONY. Colonel, there must be a tremendous lot of office equipment turned in as surplus after the war from all the offices in Washington and elsewhere. Has not enough been retained to satisfy the possibility of the Air Service for years to come?

Col. FICKEL. It would seem not, from the requisitions which are made upon the Quartermaster's Department for that material?

Mr. ANTHONY. Have you made any effort to obtain this office equipment from that surplus?

Col. FICKEL. We have obtained a great deal from that.

Mr. ANTHONY. You find you have to get this in addition to what is on hand?

Col. FICKEL. Yes, sir.

Mr. ANTHONY. What does it consist of, desks and things of that kind?

Col. FICKEL. No, sir.

Col. FULLER. It is stationery, and matters of that sort, largely. Under a ruling we can not draw this equipment from the Quartermaster's Department. They consist of rubber bands, blotters, card indexes, envelopes, gasoline for cleaning typewriters, glue, mimeograph paper, carbon paper, sponges, and things of that sort. It consists partly of stationery that we are required to furnish for the Air Service. It is not desks; it is equipment. We use those words, Mr. Chairman, only because that is the wording in the bill, and in making up the itemization for bookkeeping.

Mr. Sisson. Under that language you could purchase office equipment. Under the construction of that language as it applies to other offices, you could buy anything. In the items for the other offices that is the language used, under which they buy chairs, tables, furniture, etc.

Col. FULLER. If we were going to get equipment for a school, if we wanted to buy arm-chairs, with wide arms—

Mr. Sisson (interposing). You might have to put the word "furniture" in there.

Col. FULLER. We would buy that out of this item. We would buy laboratory equipment.

Mr. Sisson. The term, I know, is comprehensive, so I think the chairman's question was a very proper one, as to what you would buy out of it. You are not actually buying office equipment when you could get out of this enormous surplus supply.

Col. FICKEL. The voucher submitted by the disbursing officer has to bear upon its face the statement that he has endeavored to obtain this equipment from other departments.

FUEL AND LUBRICANTS.

Mr. ANTHONY. Under the item for fuel and lubricants you are asking for \$3,500,000. That was formerly purchased through the Quartermaster's Department, and you now intend to purchase everything of that kind?

Col. FULLER. Yes, sir.

Mr. ANTHONY. You have read and put in the record a statement showing the amount of various kinds you propose to purchase and the prices. Can you tell us what is the present price you are paying for gasoline, or what price the Quartermaster's Department is paying for its gasoline?

Col. FICKEL. So far as the present price is concerned, judging by the price in Washington (it varies in different localities), but here in Washington it is 29 cents for gasoline at the present time.

Mr. ANTHONY. Does not the Government have a contract?

Col. FICKEL. That gasoline is for automobiles.

Mr. ANTHONY. But the Government used to have a contract for its supply of gasoline and it used to be at a price lower than the commercial price. Do you have such an arrangement now with the oil companies, or are you obliged to pay the commercial price?

Col. FICKEL. No, sir; they have their contracts.

Mr. ANTHONY. What is the present price for gasoline?

Col. FICKEL. I do not know. The Quartermaster General is purchasing it this year. I think it is 42 cents for the high-test gas.

Mr. ANTHONY. What grade of gasoline do you use in airplanes?

Col. FICKEL. The very highest test we can get.

Mr. ANTHONY. What test is that?

Col. FICKEL. It runs about 75 or 76.

Mr. ANTHONY. Can you operate an airplane with the commercial gasoline?

Col. FICKEL. No, sir; not safely. The experiments have demonstrated that ordinary automobile gasoline is not safe now.

PRICE OF HIGH-TEST GASOLINE.

Mr. ANTHONY. Have you made any investigations that will give you an idea of the probable price you will have to pay for the aeroplane gas?

Col. FULLER. It is 42 cents, I understand, for the present fiscal year.

Mr. Sisson. There is not much competition in that gas?

Col. FULLER. Very few companies will handle it.

Mr. ANTHONY. You have to have it made to order?

Col. FICKEL. At the time of the Gordon Bennett race they had to order a gas that was even finer than the gas ordinarily supplied to our fields. They found there was only one company in the United States that would make that gas and they had to send to San Francisco for it.

Mr. Sisson. I doubt whether any companies would make that gas in a commercial way, certainly not in quantities.

Col. FICKEL. An aviator landing in a small town generally has to take what they will give him, and it is a dangerous proceeding.

Mr. ANTHONY. Do commercial aviators use this high-priced gas or do they use the commercial gas?

Col. FICKEL. They try to get the best they can.

Mr. ANTHONY. Most of them operate with commercial gas, do they not?

Col. FICKEL. Not if they can avoid it. If they can get the higher test gas they will do so. Out in the central West the Standard Oil Co. sells a gas they call stove and light, which runs about 72. They sell it for gasoline lamps.

Mr. ANTHONY. It used to be when the automobile first came out that they thought they could not operate an automobile on less than 72-grade gasoline. Now they operate automobiles on less than 55.

Col. FICKEL. Yes; but a Ford sometimes stops on that, and we do not care to stop in the air.

Col. FULLER. This item also includes rust preventives for care of material in storage.

Estimates for fiscal year 1922.

[Title: Airplane gasoline, aero oil, and rust preventive. Submitted by property division, Dec. 9, 1920]

GASOLINE AND OIL.¹

	Heavier than air.		Lighter than air.	
	Operations.	Training.	Balloon and airships.	Grand total.
Total flying hours.....	60,409	116,591	20,000	197,000
Consumption, gallons gasoline per hour.....	35	35	35	
Gasoline oil per hour.....	1.5	1.5	1.5	
Total gallons gasoline.....	2,114,251	4,080,645	700,000	6,894,896
Total gallons oil.....	90,613.5	174,886.5	30,000	295,500
Cost per gallon, gasoline.....	\$0.42	\$0.42	\$0.42	
Cost per gallon, oil.....	\$1.00	\$1.00	\$1.00	
Total cost gasoline.....	\$888,012.20	\$1,713,887.70	\$294,000.00	\$2,895,900.00
Total cost oil.....	\$90,613.50	174,886.50	30,000.00	295,500.00
Total cost gasoline and oil.....	\$978,625.80	1,888,774.20	324,000.00	3,191,400.00

¹ Prepared on basis of total cost of \$16.20 per flying hour for 197,000 flying hours.

RUST PREVENTIVE.²

Total number engines to be stored.....	17,536
Gallons per engine.....	18
Total number gallons.....	315,653
Cost per gallon.....	\$1.00
Total cost.....	\$315,653.00

² Prepared on basis of 18 gallons of rust preventive per engine, at \$1 per gallon. This estimate allows the storage of 17,536.
Total cost fuel and lubricants and rust preventative, \$3,507,053.

Mr. ANTHONY. You have stated, have you not, how many planes you propose to purchase?

Col. FULLER. How many will be necessary for training, and all that? That is in the record.

Mr. ANTHONY. That is in the record?

Col. FULLER. Yes, sir.

COMPARISON WITH EUROPEAN DEVELOPMENTS.

Mr. ANTHONY. General, do you feel that you are keeping abreast with all of the foreign developments in airplanes?

Gen. MENOHER. I think we are abreast of European countries fully.

Mr. ANTHONY. Are we not ahead of them in some respects?

Gen. MENOHER. In some respects; yes. There is every indication that we are ahead in many things, and I have no reason to feel that

we are being left behind in the matter of advance in the general subject.

Mr. ANTHONY. The situation really is how largely we should go into the question of production of new planes?

Gen. MENOHER. In a measure, yes; but we feel this that we should not be satisfied with the progress that we have made. We have got to keep going, we can not stop in the air, so to speak. Just like a plane, we have to go on. Otherwise we will fall behind.

EXPENSE OF SALES OF SURPLUS MATERIAL.

Mr. ANTHONY. Under the head of expense of sales, I take it from the statement that you introduced yesterday that you are asking for only \$36,250 for the next fiscal year. Last year there was appropriated \$1,000,000 for this purpose. That is due to the fact that you have practically disposed of all of your available surplus?

Gen. MENOHER. We have now about \$15,000,000 worth of material that has been declared surplus. To that will be added from time to time small amounts that will be discovered here and elsewhere in the concentration of our material, in the abandonment of this field or that, but that amount will not be materially changed.

Mr. ANTHONY. And you have got an item for cleaning up war work?

Maj. FICKLE. We have such a table prepared.

Col. FULLER. We have that right here.

Mr. ANTHONY. What is that, \$496,277?

Col. FULLER. Yes.

Mr. ANTHONY. What is required for expenses of sales?

Col. FULLER. That includes the civilian employees in the item presented for the payment of personnel at the Curtis-Elmwood plant, at Buffalo, at which place there is being concentrated all this material to be sold. The market is favorable, and we are getting it out of the way and cutting down the expense at other places.

Mr. ANTHONY. With only \$15,000,000 worth of stuff yet remaining to be sold, will you need \$492,000 to take care of that stuff?

Col. FULLER. Yes, sir.

Mr. ANTHONY. Is not that a pretty high cost?

Col. FULLER. No; I do not think so.

Mr. Sisson. Just to care for the stuff?

Col. FULLER. That is not alone to take care of it.

Mr. Sisson. What do they do to it, recondition it there, recondition any of that?

Gen. MENOHER. One per cent would be \$150,000. Six per cent would be \$900,000.

Mr. ANTHONY. Now, when I was at the Curtis-Elmwood plant last year, it was full of all kinds of raw materials that went into the manufacture of airplanes, hundreds of thousands of barrels of castor oil, and all kinds of metals in bars and plates. Has that stuff been sold?

Gen. MENOHER. Some of it has been sold. We still have the trucks there.

Mr. ANTHONY. They belong to the Air Service?

Gen. MENOHER. They do not.

Mr. ANTHONY. You are caring for them for the Quartermaster Department?

Gen. MENOHER. Yes; saving storage for them.

Mr. CRAMTON. Was the \$15,000,000 the cost price or the present value?

Gen. MENOHER. The cost price to the Government.

Mr. CRAMTON. Have you any estimate as to its present value?

Gen. MENOHER. We will get, based on what we have got before, based on experience, we should get 63 per cent of that. But of course the cream has been skimmed to a certain extent.

Mr. SISSON. You will do well to get 50 per cent, then?

Gen. MENOHER. The material for which there was the greatest demand was sold first.

Mr. CRAMTON. The value is not more than \$7,000,000 or \$8,000,000.

Gen. MENOHER. Probably not much over half.

Mr. SISSON. And it will cost \$400,000 to take care of that?

Gen. MENOHER. That will be only 3 per cent.

Mr. SISSON. Five per cent ought to take goods into a house and sell them.

Mr. CRAMTON. Three per cent of the original value, but about 7 or 8 per cent——

Gen. MENOHER. Three per cent of the depreciated value.

Mr. CRAMTON. About \$8,000,000 or \$9,000,000 worth of stock?

Gen. MENOHER. \$15,000,000. We will say that we get half. That will be seven and a half millions. Now, 3 per cent of that would be——

Mr. SISSON. Half of your appropriation.

Gen. MENOHER. Six per cent, it would be.

Col. FULLER. This material is not there and in a static condition. It is coming in constantly and has to be classified, and all the arrangements for its preparation for sale are covered by this expense, including the material that comes to us in closing the contracts with these large manufacturers. Material on hand which is to come to the Government in the settlements is to be concentrated here. It is very actively handled.

Mr. ANTHONY. I notice that Mr. McKenzie has come into the room, one of the best-informed Members of the House on military matters, and we will be glad to have any suggestions that Mr. McKenzie has to offer as we go along.

Mr. MCKENZIE. That is very kind of you, Mr. Chairman. I did not come in to offer any suggestions. I came in merely to see Gen. Lord, but I would be glad to stay and listen to you gentlemen.

Mr. SISSON. One moment about this 6 per cent for caring for this property. In the mercantile world a man figures in his business that he ought to be able to take care of his merchandise, get it into his house, and sell it for about 5 per cent.

Gen. MENOHER. This is not the care. It is the care and disposition of it. We have to concentrate it where we have a market.

Mr. SISSON. Does this force sell it?

Gen. MENOHER. We propose to sell it.

Mr. SISSON. Is this the force that determines the sale of the property?

Col. ROBINS. We have at a number of inactive fields in the country now stored a great deal of material. Some of it will be declared surplus for sale. Other portions will be held in the Air Service for use

Mr. Sisson. I thought we were talking all along about the amount that would be declared surplus. You said \$15,000,000.

Gen. MENOHER. We have some that has not been declared surplus. That is to be handled with it.

Mr. Sisson. Does that \$15,000,000 include the cost of the property on hand which has not been declared surplus as well as that which has?

Gen. MENOHER. That includes all that has been declared surplus.

Mr. Sisson. What does that calculation amount to as to overhead if you have an indeterminate matter that has not been declared surplus?

Col. ROBINS. We have got to ship to Buffalo from a good many places where we have decided to get rid of this property.

Mr. Sisson. What property are you talking about—that which has been declared surplus?

Col. ROBINS. We have made estimates that there are \$15,000,000 worth of surplus property which we are going to have in Buffalo and arrange it for sale.

Gen. MENOHER. Buffalo has been our best market.

Mr. Sisson. You say, estimated \$15,000,000. Is that the cost to the Government?

Col. ROBINS. That is the cost to the Government.

Mr. Sisson. That has been actually declared surplus?

Col. ROBINS. Yes, sir. We have got to sort it out and separate it from useful material. We have estimated that it will be that much.

Mr. Sisson. I understood you to say that it had been declared surplus.

Gen. MENOHER. I understood that that much had been declared surplus.

Mr. Sisson. You see we are having a great deal of trouble with all the departments of the Army and Navy to indicate what surplus you have on hand. Something ought to be done so that we might determine what property the Army and Navy needs and what it can sell. That determines to a certain extent the condition the Treasury is in. In other words, Uncle Sam, in making up the estimate of what he owes, what he has to pay, is very desirous of knowing how much we will have from the sale of this property. Go ahead with your statement. You are giving me a view that I had not had before.

Col. ROBINS. As I said, we are getting this property in, and in this property there is some that we want to lay aside for the use of the Air Service, that must be separated from that which must be sold.

Mr. Sisson. How much property have you in all, both that which has been declared surplus and that which you expect to keep for the use of the Air Service?

Col. ROBINS. We have a statement that has been made. Air Service.

Maj. FICKLE. There is a statement now being prepared for insertion in the record of Saturday giving the total assets, both their cost to the Government and their present worth.

Mr. Sisson. Will that statement show with reasonable accuracy the amount you have already declared surplus?

Maj. FICKLE. That statement has been furnished; yes, sir.

Mr. Sisson. It shows with reasonable accuracy what you have declared surplus?

Maj. FICKLE. Yes.

Mr. Sisson. Who determines what is surplus and what is not surplus in the Air Service?

Col. ROBINS. We have a Requirements Division in the Air Service, which makes a study of that.

Mr. Sisson. Who constitute the Requirements Division?

Col. ROBINS. Maj. Jones is the chief of the Requirements Division.

Mr. Sisson. Put in the record what official position he holds in the Air Service.

Col. ROBINS. "Chief Requirements Division." Under him he has 2 officers and 13 clerks. Of these only one-half are engaged in the determination of surplus property.

Mr. Sisson. I want to locate the responsibility of declaring a surplus.

Col. ROBINS. The system which we follow in declaring an article surplus is to take an inventory. This inventory goes to the Requirements Division.

Mr. Sisson. That inventory includes all of that property?

Col. ROBINS. We take the total inventory of the entire Air Service. From that inventory first we figure just what the requirements of the Air Service will be and subtract that from the total and the remainder is surplus.

Mr. Sisson. Who does the subtracting?

Col. ROBINS. The Requirements Division. In addition to that we have to declare surplus such property as is obsolete and of no use, which, of course, is sold with that which is in excess of our requirements.

Mr. Sisson. Can you tell now roughly, and correct the statement in the record if you desire to do so when you get your testimony, that which you have declared surplus and that which you have declared that you will keep?

Col. ROBINS. I would like to put that in the record later on.

Statement of surplus property in the Air Service.

	Total reported for disposal.	Total sold.	Total transferred.	Balance.	Total disposed of
Airplanes.....	\$42,626,249.18	\$27,554,286.51	\$5,339,926.43	\$9,732,036.24	\$32,404,212.44
Chemicals.....	5,413,732.95	2,399,283.12	1,611,357.24	1,403,092.59	4,011,632.73
Electrical.....	584,911.91	175,767.07	238,197.47	170,947.37	413,707.17
Metals.....	8,541,877.86	6,739,548.71	589,120.00	1,213,209.15	7,328,877.66
Hardware.....	4,694,214.16	351,904.05	2,466,940.75	1,875,329.36	2,818,173.71
Lumber.....	5,467,470.16	4,946,877.66	777,915.31	142,677.19	5,724,722.22
Machine tools.....	6,405,862.64	5,027,005.59	703,275.06	675,581.99	5,753,202.14
Machine and engines..	255,763.42	92,123.67	40,603.95	83,035.40	172,629.75
Textiles.....	13,031,435.65	9,256,883.21	3,770,595.87	3,956.57	13,027,677.14
Tools.....	1,489,005.08	1,143,237.66		345,767.42	1,143,237.66
Unclassified.....	6,238,839.83	5,340,930.47	628,448.50	249,460.86	5,969,348.90
Auction sales not completed.....	523,615.62	523,615.62			523,615.62
Total.....	95,672,978.46	63,571,463.34	16,210,420.58	15,495,004.54	79,777,943.36
Estimated to be declared surplus.....	35,000,000.00				
Total sold and transferred and to be declared surplus.	130,672,978.46				

SUMMARY.

Surplus property.....	\$120,672,978.46
Property to be held.....	\$14,340,000.00

CIVILIAN SALESMEN.

Mr. ANTHONY. Colonel, can you tell us, do you employ civilians most largely in this work of disposal of this surplus?

Col. ROBINS. In the disposal; yes, sir.

Mr. ANTHONY. Why do you not use officers of the Air Service?

Col. ROBINS. We do have officers in charge of this work, but we employ a great many civilians in addition.

Mr. ANTHONY. It was explained here that you employed civilian salesmen.

Col. ROBINS. Yes, sir.

Mr. ANTHONY. But you have officers in the Air Service in direct charge of them, do you?

Col. ROBINS. Yes, sir. We have a division in the Air Service controlled by an officer, and several officers who have charge of the selling of this property, and in addition to that we have expert salesmen that we have employed to carry on the necessary business arrangements incident to the sale.

Mr. Sisson. Can you furnish for the record what you are paying these civilian employees?

Col. ROBINS. Yes, sir. We have not many of them left now. We have dispensed with the services of quite a number within the last few months.

STATEMENT OF SALESMEN EMPLOYED IN THE DISPOSAL OF AIR SERVICE SURPLUS PROPERTY.

Mr. Eugene T. Bernart, who is employed in the Washington office, is rated as a "sales expert" at a salary of \$4,800 per annum. He is a temporary employee and his appointment expires March 22, 1921.

Mr. Robert J. Gaskin, on duty in the Buffalo office, has a designation as "salesman"; his salary is \$1,600 per annum, is a temporary employee, and his appointment expires March 31, 1921.

Mr. Theodore K. Hastings, on duty in the New York office, a temporary appointee, is rated as a "sales specialist." His salary is \$2,200 per annum; his appointment expires February 26, 1921. This employee recently took the examination for permanent appointment as appraisals expert.

The services of Mr. Bernart will probably be required for a period not in excess of 90 days; those of Mr. Gaskin will be required indefinitely at Buffalo, which is the permanent depot for Air Service supplies. It is desired to transfer Mr. Hastings from New York if authority can be obtained when the necessity for Mr. Hastings's employment in the New York district ceases.

Mr. Sisson. In your estimate of what it is costing to care for this surplus property and dispose of it, have you calculated the salary of the Army officers that are there in charge?

Col. FULLER. No, sir.

Mr. Sisson. I mean in the estimate that the general gave us a moment ago.

Col. FULLER. No, sir.

Mr. Sisson. You do not charge against the overhead for carrying this property the Army officers detailed for that purpose?

Gen. MENOHER. No, sir.

Mr. Sisson. So far as the Government is concerned it does not matter, but so far as the expense of handling this property is concerned, and as a business proposition, it does matter, because their services have been used, and therefore it ought to be charged up against this property.

CIVILIAN EMPLOYEES AT EXPERIMENTAL STATIONS.

Mr. McKENZIE. Mr. Chairman, it is not exactly in connection with that matter, but I would like to ask a question just to get a little information in regard to the matter of making this estimate. I believe this is an estimate for the Air Service, and I am interested in finding out just what it means. For instance, on the first page of the estimate in the second item we find, "Pay of civilians in the field, \$6,856,156." Then in the next column, under the head of "Experimental stations and research, \$2,612,000," making a total of \$9,468,156. Now, you gentlemen probably have gone into that. The point that I would like to have explained for my own satisfaction when the matter comes up is whether or not the amount set aside there under the head of experimental stations can be utilized to pay additional civilian employees. If not, what use can you make of civilian employees around experimental stations, and what is the purpose of putting figures in the estimates in that shape?

Mr. ANTHONY. Before Gen. Menoher answers that question I would like to say, Mr. McKenzie, that we went into that very fully the last day, and we were somewhat amazed to find the number of civilians employed in the Air Service. Probably every officer and enlisted man in the Air Service is carrying around on his back, so to speak, a civilian employee. I would be very glad to have Mr. McKenzie's question answered.

Mr. McKENZIE. The only point I have in mind is this: If you estimate, if you figure that it is necessary to have \$6,000,000 for civilian employees in the Air Service, and then you put in another appropriation for civilian service at experimental stations, whether or not those two appropriations can be merged and all used under the first column. In other words, is it misleading, or is it not?

Col. FULLER. I think not. We hoped that it would not be. The object of setting out separately there all the expenses for experimental development grew out of the fact that Congress saw fit last year to fix an amount which could be spent for experimental development, and inasmuch as the experimental plant requires civilians, we therefore divided that item. It grows out of the fact that the current appropriation bill has a provision that a certain amount shall be spent for experimental development.

Mr. McKENZIE. If the chairman will permit me—and I simply make this statement to the members of the subcommittee—my observation in talking with a great many men is that one of the things that is causing a prejudice to become broadly spread all over the country is the enormous expense of the Military Establishment. That is, the people are becoming prejudiced against the Army. Now, I hope I am a friend of the Army. I believe in a good Military Establishment. But I do want to say the members of this subcommittee that in my judgment there is not any one thing that will tend to remove a great deal of this prejudice any more than cutting off the civilian employees. If we are going to have a Military Establishment, and then we have got to carry a great army of civilians along to take care of the Military Establishment, in time there will be such a feeling growing up in the country that it is going to be injurious to the Military Establishment.

Mr. Sisson. And in answer to what Mr. McKenzie has said, and enforcing the idea that he has presented, you will find this condition at every place where one of these Military Establishments is located, in the employment of these men in civilian life, in the civil establishment of the Army, you will find a great prejudice existing because the people complain that they can not get labor at any price, and the result is that the condition he speaks of is creating a great deal of prejudice against the Army because they are materially affected by it.

Mr. McKENZIE. I find that view is chiefly held by the third-rate lawyer who is teaching it wherever he can.

Mr. ANTHONY. I hope, Mr. McKenzie, you will come in when we have vocational training under consideration.

Col. FULLER. There is one point on these civilians that I would like to bring to your attention. Appreciating this sentiment, we considered following the custom that pertains generally in almost all estimates coming before the Congress, of showing certain activities, costing so much, without dividing into material and personnel. But we deemed, in frankness and due to the importance of this item, that we should separate all civilians and put it right out where it could be seen, put it at the top of the list where the entire amount can be studied by the committee, and in so doing our total charge for civilians in percentage of the total estimate is about 17 per cent, whereas when you go back to the prewar period, which we took for a comparison, in certain other branches of the Government doing about the same class of work as the Signal Corps, Ordnance Department, and Engineering Corps, the expenditure for civilians, as a percentage of the total expenditure, was 30 per cent and a fraction.

Mr. CRAMTON. Perhaps the most important aim that the Air Service has is the development of types of planes. Is that true?

Col. FULLER. That is very important. Also getting people to fly them.

TOTAL PERSONNEL.

Mr. CRAMTON. There are two things that you want most in time of peace. Those are first, to develop the types of planes that would be used in quantities in case of war, and to train the men to fly them in event of emergency. Your work then is first experimental as to the development of the type of plane, and secondly, it is one of education, training. Your organization as called for by your estimates includes some 1,514 officers and 16,000 enlisted men. How many civilians in addition to that?

Col. FULLER. In the total organization, including laborers, 6,440.

Mr. CRAMTON. Making a total personnel of about 24,000 men, practically none of them engaged in the manufacture of equipment. You do not engage in any particular degree in the manufacture of your equipment?

Col. FULLER. Not in the initial manufacture, but the very nature of the equipment itself requires constant repairing which involves the same operation as does manufacture.

Mr. CRAMTON. Some of the overhauling?

Col. FULLER. For instance, some of the DH-4's in the repair shop were practically reconstructed.

Mr. CRAMTON. I remember you spent some \$12,000 apiece to overhaul them. You have a force of 24,000 that is being used for experimental and educational purposes.

Mr. ANTHONY. You have not that many now. You have only about 8,000 actually enlisted.

Mr. CRAMTON. But the estimates call for that number. Do you not think that that is a pretty high number in your organization?

Col. FULLER. No, sir; we do not.

Mr. CRAMTON. And is not a large part of that engaged in spreading out rather than simply building for the future?

Col. FULLER. I am glad to have the opportunity to answer that question. This is what the Air Service is doing, in accordance with the plan——

DEVELOPMENT OF RESERVE OFFICERS.

Mr. CRAMTON (interposing). It is only a little while since 25,000 was the whole Regular Army.

Col. FULLER. We are doing these primary things, operating the school system, the object of which is to generate replacement flying personnel to go into the reserve. We now have a reserve of 5,300 flying officers.

Mr. CRAMTON. They are not included in the 24,000, of course.

Col. FULLER. They are not included in the 24,000. Next year we plan on training 1,200 flying cadets for replacements. If we train 2,500, in eight years we could reach a constant of 9,850 of these flyers, whereas the approved plans of the War Department show that several times that number would be required in the first few months of a war before we could commence turning out others.

Mr. CRAMTON. By the two main aims, one educational, in that you are hoping to train 1,200 men a year?

Gen. MENOHER. Twenty-five hundred a year.

Mr. CRAMTON. That is your cadets?

Col. FULLER. That is what we put in the bank for the reserve to meet the war requirements.

Mr. CRAMTON. It is hardly to be said that you put it in the bank, because anything you put in the bank is supposed to be there when you want it. As I understand it, these are put in storage and then spoil very soon.

Col. FULLER. They must be replaced continuously. We estimate that on the average eight years is the period of effectiveness of the reserve officer.

Mr. CRAMTON. These 1,200 that you trained this year become of negligible value unless the training is continued.

Col. FULLER. It is estimated that the average effectiveness of the reserve officer will be eight years. In figuring out the annual increment and decrement, at the end of the eighth year we will reach a stabilized number, if we turn out 2,500, of 9,800, but with 1,200 a year it will be much less.

Mr. CRAMTON. I do not want to take much time on it, but I think there may be a question that is in my mind that may be reflected in the minds of others as fully informed as I am. The organization has two principal purposes. Some of them that are keenly interested in seeing you follow the experimental work very fully think that if we

have to spend these many, many millions in maintaining such an immense organization, it rather interferes with our putting millions into the experimental.

Col. FULLER. That training part is what we have got to carry on to hold our own. In addition to this training for the generation of flying officers of the reserve, we have only one tactical unit of each type, one group, the smallest tactical unit of pursuit, bombardment, and attack, and those units are likewise necessary for training in order that the tactical doctrine of that unit may have proper development and progress. And I would like to leave this thought with you, that in the Air Service these various divisions of pursuit and attack, observation and bombardment, each one of these things is like an arm of the service, like the Cavalry, the Infantry, and the Field Artillery, and the Air Service is really a combination of four arms of the service in aerial activities, the same as we have them on the ground.

QUASI-MILITARY WORK—FOREST PATROL.

Mr. ANTHONY. Under the head of quasi-military work you are asking for \$2,335,515, besides forest-patrol work. What is this so-called quasi-military work; what does this so-called quasi-military activity consist of?

Col. FULLER. Primarily it consists of the maintenance of and training of the reserve and the forest-patrol work carried on by the Air Service.

Mr. ANTHONY. What did the forest-patrol work cost the Air Service the present year?

Col. FULLER. I will have to figure it out and put it in the record.

Mr. ANTHONY. Will you put a statement of that in the record?

Col. FULLER. Yes, sir. I will ask the training and operation group to prepare such a statement.

(Statement follows:)

1920 FOREST FIRE PATROL BY AIR SERVICE.

(a) During the forest-fire season of 1920 the Air Service has been able to operate in the course of its training schedule the airplanes of certain units in the very important work of forest fire patrol.

While it is impossible to arrive at an accurate estimate of the cost or even to hazard a guess, it is felt that considered as an insurance premium the comparatively small extra operating cost for fuel and maintenance of equipment and incidental personal expenses, which for the season 1920 can be roughly estimated at \$115,815, is compensated for many times over in the protection given forest areas. While the actual damage to forests recorded since the year 1915 as shown in figures below is, comparatively speaking, small, this is no criterion enabling one to estimate the national loss that would ensue in a dry season should the forest fires get out of hand. In the figures given below the forests are estimated as worth \$300,000,000. This is based on the sum of \$10 per acre, but it is a fact that these wooded areas are priceless and form an important unit in the economical make-up of the Nation.

Until the introduction of the airplane, forest reserves were watched over by rangers who devised many ingenious and elaborate schemes for the detection and extinction of forest fires. This means of protection has about reached its maximum efficiency and the spending of further money will not to any great extent improve the ground system now in vogue. The airplane as an adjunct increases the efficiency of forest rangers with very little added cost to the Nation. The overhead in airplanes and personnel must be maintained in the Air Service as part of the machinery of national defense and the public service the Army can render may be considered as a by-product and the extra cost as an added

insurance premium paid in return for better fire protection in the forests, not to speak of the practical value in training to the personnel employed.

(b) A résumé showing the operations of the forest patrol for the present year including cost, extent, and value of property saved, is as follows:

The Ninth Aero Squadron with headquarters at Mather Field, patrolled the forests of California. Flight A, of the Ninety-first Aero Squadron, operated in Oregon north and south from Eugene. DH4B airplanes were used by both squadrons. The following tabulations give the extent and results of patrols. The approximate cost of the operations for the fiscal year was \$115,815.

ESTIMATE OF COST OF FOREST PATROL, FIRE SEASON 1920.

Item 0301.401. Maintenance of airplanes and their spare parts.....	\$28,815
Item 0305.401. Maintenance of engines and their spare parts.....	25,202
Cost of fuel and lubricants.....	61,798
Total.....	115,815

NOTE.—There were certain additional expenses for mileage and traveling expenses of officers and enlisted men and for salvage of wrecked planes, which expenses are not available now.

California patrol.

- Route No. 3. Fresno-Bakers Field and return, a total of 375 miles.
- Route No. 4. Fresno-Cooperstown and return, a total of 300 miles. Patrols 4 and 5 were combined late in season.
- Route No. 5. Mather Field-Cooperstown and return, a total of 250 miles. Patrols 4 and 5 were combined late in season.
- Route No. 6. Mather Field-Red Bluff and return, a total of 375 miles.
- Route No. 7. Red Bluff-Alturas and return, a total of 315 miles.
- Route No. 8. Red Bluff-Montague and return, a total of 350 miles.
- Route No. 9. Red Bluff-Covelo and return, a total of 255 miles.

Oregon patrol.

- Route No. 1. Eugene north to Portland and return, approximately 280 miles each way.
- Route No. 2. Eugene south to Medford and return, approximately 175 miles each way.

	California— May 16–Sept. 30.	Oregon— July 1–Sept. 15.	Total
Number of patrols.....	1,118	183	1,301
Number of fires reported.....	899	733	1,632
Number of fires reported first.....	353	465	818
Total area observed.....square miles.	13,370,749	2,962,241	16,332,990
Total mileage flown.....	378,820	87,265	466,085
Total hours flown.....	3,262	731	3,993
Number forced landings.....	36	5	41
Number officers on duty.....	29	6	35
Number enlisted men on duty.....	87	61	148
Number airplanes employed.....	26	11	37

California and Oregon.

	California.	Oregon.
Estimated value of fire hazard forest areas.....	\$200,000,000	\$100,000,000
Estimated value of forests destroyed:		
1915.....	26,054	720
1916.....	37,546	1,000
1917.....	234,014	3,000
1918.....	91,684	151
1919.....	147,537	274
1920.....	83,379	90

Mr. CRAMTON. I would like to know this in connection with that: How you figure that cost, how much of that cost is in addition to what the expenses of your service would have been to the Government if you did not perform that particular service. In other words, the men you were flying you would have on your organization anyway, and you had your plants, but I suppose there was some additional cost for repairs, maintenance, and fuel.

Col. FULLER. These are the items which enter into that total, \$394,515, civilians for the flying of the reserve personnel.

Mr. ANTHONY. Right there, Colonel, what do you call that quasi-military work? Why is not training purely military work?

Col. FULLER. I understand that was in accordance with the desire of the War Department as to classification.

Gen. LORD. I think this classification was furnished by the Air Service.

Mr. CRAMTON. May I ask if I have that on this document?

Col. FULLER. No, sir. It is a classification of those items going through the various items.

Gen. LORD. I introduce this for the record, Mr. Chairman: The Air Service under instructions from the War Department, signed by an officer of the Adjutant General's Department, was instructed to include in the amount for quasi-military work all expenditures for the Reserve Officers' Training Corps, for reserve officers for rifle practice, for military training of civilians, and for similar purposes, to be included under this head.

(The statement follows:)

NOVEMBER 20, 1920.

Subject: Estimate data bill for support of the Army, fiscal year 1922.

To: The Chief of the Air Service.

The approved estimates for the Army appropriation bill, fiscal year 1922, for the activities in your charge will be analyzed and a report thereon prepared by you, one copy of which will be delivered to the office of the Chief of Finance, room No. 3014, Munitions Building, by 3 o'clock p. m., Saturday, November 27, 1920, and will show, in the case of each appropriation item, the following components:

(a) Amount for cleaning up war work:

The extent of this class is self evident. It is desired that all reasonable charges relating to expenditures necessitated by cleaning up work incident to the war be included under this heading. Care should, however, be exercised that only such amounts as would not be required were it not for such necessity of cleaning up war work be included under this head.

(b) Amount for quasi military work:

This is intended to include any amounts which are not strictly speaking a proper charge against the support of the Regular Military Establishment; for example, the items relating to roads, cables, etc., for Alaska, all expenditures for the Reserve Officers' Training Corps for reserve officers for rifle practice, or military training of civilians, and similar purposes should be included under this head.

(c) Amount for constant, or nonvariable components pertaining to normal military requirements of the Regular Establishment:

All requirements for the Regular Military Establishment, the amounts of which are not directly affected by the enlisted strength of the Army estimated for will be included under this head.

(d) Amount for variable components pertaining to the Regular Military Establishment:

These components, the amounts of which are directly dependent upon the enlisted strength of the Regular Establishment, will be placed under this head. All nonvariable expenses of overhead or similar expenses pertaining to these items should be included under item (c): "Constant or nonvariable compo-

nents pertaining to normal military requirements of the Regular Establishment." The amounts of these variable items should, in general, be proportionate either to the respective enlisted strengths or to the number of organizations represented by such enlisted strengths.

The information herein directed to be furnished is similar to that which was requested by the Military Affairs Committee of the House during the hearings on the Army appropriation bill, fiscal year 1921, and appears in the form of a statement commencing on page 822 of the hearings before Subcommittee No. 1, Committee on Military Affairs, House of Representatives, Sixty-sixth Congress, second session.

By order of the Secretary of War:

ROBERT L. COLLINS,
Adjutant General.

Mr. CRAMTON. Just a little as to that expenditure for forest control. Have you the figures to indicate whether the whole amount—I think you said \$278,000 were the figures.

Col. FULLER. For the forest control the total is—I will have to look it up and will put it in the record.

Mr. CRAMTON. I understand your forest control you put under the quasi military, and now have you the items that come under that heading?

Col. FULLER. Air planes and their spare parts, maintenance, and repair, \$54,028. Engines and their spare parts, maintenance and repair, \$47,253.

Estimate of cost of forest-fire patrol, fiscal year 1922 (fire season 1921).

Item 0301.401. Maintenance of airplanes and their spare parts-----	\$54,028
Item 0305.401. Maintenance of engines and their spare parts-----	47,253
Cost of fuel and lubricants-----	115,872
Total -----	217,151

NOTE.—These expenses are figured on a total number of flying hours of 7,500.

Mr. ANTHONY. Are not these items in your general estimates for engines and repairs as well?

Maj. FICKLE. This is an analysis of these items.

Col. FULLER. This is a division of these items.

Mr. ANTHONY. An analysis of the \$490,000?

Col. FULLER. Yes.

Mr. ANTHONY. Why do you make a special itemization of engines and repairs in this case when it is probably covered in your big item?

Col. FULLER. This is not an additional item. This is a mere classification of the items.

Mr. ANTHONY. Of the entire estimate?

Col. FULLER. Yes.

Mr. ANTHONY. You might put that in the record. I will not take your time now, but ask this one question to get at what I have in mind. As I recall in the forest patrol your men flew 478,000 hours. Now, that was no more expense to the Government by reason of the fact that in flying that 478,000 hours they were on the lookout for forest fires than would have been otherwise, and the wear and tear on your engines and all expenses for your men in their training and in the tryout of machines, etc., in order to fly 478,000 hours, there would be no additional expense to the Government by reason of the fact that they were incidentally looking out for forest fires.

Col. FULLER. That is generally correct.

Mr. CRAMTON. There may have been some small items, but in the main that is correct——

Col. FULLER. The fact is that the area covered in this patrol is very large, the Rocky Mountain slopes and clear into Montana, and it was necessary to have certain facilities there, and to send the personnel, and there is some little incidental expense, but that is fine work for the Air Service and a fine opportunity for the Air Service to give the Government a return.

Mr. CRAMTON. And in the main there was no additional expense by reason of the fact that they rendered that utilitarian service.

Col. FECHET. These have no military value, so far as we are concerned. We are not using these men for the military end at all. If it were not for that forest-fire patrol we would not fly those men in that section of the country. Observation aviation must be trained with ground troops, and there are no ground troops there. We would not send valuable planes into that country without an excellent reason. There are no landing fields. The care of the forests makes it necessary to fly in that section of the country, not the matter of training our flyers.

Mr. CRAMTON. But the time spent in flying in that region is of benefit to their training?

Col. FECHET. Oh, yes; any time a flyer spends in the air is of benefit. But the idea I would like to convey is that if it were not for looking out for forest fires and getting prompt reports in to save the timber, we would not use that section of the country. It is not suitable for our service training.

TRAINING IN CONJUNCTION WITH OTHER TROOPS.

Mr. CRAMTON. To what extent is the Air Service trained in conjunction with other troops?

Col. FECHET. It is impossible to answer.

Mr. CRAMTON. No; it is not. I mean to what extent the men that you have in training. Your service is supposed to be for two purposes, one of them the training of the men in the air service. Now, to what extent are your schools and your fields located so that that training is in conjunction with other troops?

Col. FECHET. Well, we do all the work with artillery that is possible.

Mr. CRAMTON. You said one reason that this was of no advantage, this training in the West, is that you preferred to train in connection with other troops. The information through the hearings seems to be that all the fields and schools are located entirely apart from other troops.

Col. FECHET. No, sir.

Mr. CRAMTON. Where have you schools and fields located that permit training with other troops?

Col. FECHET. At our biggest air station, Kelly Field, Texas, we conduct work with all the troops, chiefly contact work, with the Infantry and Cavalry. It is necessary that all branches of the service be trained in conjunction with Air Service troops. It is impossible for ground troops to get the full benefit of Air Service observation

unless they have actual training with the aviators. We conduct in the Eighth Corps area, however, not alone the contact work with Infantry and Cavalry, but also the work for the heavy coast guns, which fire to distances beyond the reach of terrestrial observation.

VALUE OF FIRE-PATROL WORK.

Mr. CRAMTON. Forest-control work offers no particular advantage then, in the training of flying personnel.

Col. FECHET. It is the flying training they receive in forest patrol which alone is of advantage. This flying was not, however, carried out with any progressive scheme of instruction, and with the Air Service the primary idea is instruction. I do not think I have made myself clear. We would have liked to have that personnel at points where they could have worked with troops. But the pressure brought to bear for the protection of the forests made it necessary that we send enough planes to conduct the forest control. The instruction of the Army on account of the shortness of personnel was interfered with in order to carry out this very valuable forest control.

Mr. CRAMTON. You mean valuable to the Forest Service, not to you.

Col. FECHET. Valuable to the United States. We could have used those men on much more valuable work for our instruction purposes. I do not say that we could have used them on more valuable work for the country. I think that was paramount.

Mr. CRAMTON. What I was trying to ascertain is this, the public have a desire that is frequently expressed, to put the Army in some useful occupation or other in addition to their being trained for some emergency that may come up, and it seemed that in the patrol of the forests it was simply an opportunity to make your training of the men also return some useful service immediately to the country, and it was very desirable. But I see your positive opinion is that it is not the best form of training for the men.

Col. FECHET. It is not the best form of training; no, sir.

Mr. CRAMTON. It may be very desirable?

Col. FECHET. I do not say it was not the most valuable at the time, from broad considerations of its value to the Nation economically. I can see where it is most necessary to conserve the forests, and probably at the time we were called upon for this work it was the most important thing, and probably we were justified in abandoning the purely military training in order to save all of this property.

Mr. CRAMTON. So rather than being quasi military, it would be purely commercial.

Col. FECHET. I would not say purely commercial. The practice they got in the air was valuable.

Mr. ANTHONY. Does the service want to continue this forest-control work?

Col. FECHET. Yes, sir; we do. The work is valuable to the Government and to the country and is valuable to us. We send out airplanes for the Interior Department on survey stuff like that. But it is pretty hard to say where there is going to be any particular military value to the man that is flying.

Mr. ANTHONY. These other departments are simply utilizing your department because you have the machines?

Col. FECHET. Yes, sir. We have the equipment, which is expensive, as I believe has been remarked before. We have the qualified men to handle these machines, and they have the work that needs them.

Mr. ANTHONY. On this forest-patrol work you think the net results have warranted the expenditure of the money?

Col. FECHET. I believe the Forest Bureau has estimated that we saved \$100,000,000.

Mr. ANTHONY. In fires that would not otherwise have been discovered in time?

Col. FECHET. Not in time. Even with very few forest fires it is hard to find one that will do less than \$10,000 damage. Our planes and observers discovered fires that were put out probably in 25 or 30 minutes. We had the little radio receiving stations. Our airplanes fly low in order to discover the smallest fires, then radio in its location, and forest rangers immediately go out. If it is a large fire they call on the small towns for assistance, and I believe that with a very small expenditure we went out there and saved the United States \$100,000,000.

Gen. MENOHER. You see, Mr. Cramton, we were not able with the force we had to extend this service as far as was desired. We only covered California and Oregon.

Col. FECHET. We could not go out to Arizona and New Mexico.

Gen. MENOHER. Nor Idaho and Montana. There is an effort to have us cover all of those States. That will take, as we figure it, five squadrons to cover fully.

Mr. CRAMTON. Even if it is to be an additional expense, it is a service that can be performed much more economically by your service than by any other.

Gen. MENOHER. We have the overhead, and all we need is extra personnel. We have the planes and have the facilities for the maintenance of the planes and engines, and it is, as Col. Fechet says, valuable training, because every hour spent in the air is valuable. But it is not as valuable training as it is at our fields in conjunction with the ground troops.

Mr. CRAMTON. It would suffice for a sort of primary training.

Gen. MENOHER. It keeps the men in trim.

Col. FECHET. Not for primary training. You can not have primary training with that sort of stuff.

Gen. MENOHER. That is service flying.

Maj. HICKAM. Fundamental flying. The experience we gain on that would be valuable to commercial aviation and also for military aviation.

Gen. MENOHER. We give them training at our flying field out on the coast in observation work so that the forest observer can have a pilot on forest work.

Mr. ANTHONY. Gen. Menoher, is there anything you can think of that the committee has not covered in these hearings pertaining to your service?

Gen. MENOHER. Except a short statement that I want to put into the record.

Mr. ANTHONY. Before we get to that I want to ask two or three questions, not for discussion, but to get some slight information.

PURCHASE OF LAND AT PARANAQUE, PHILIPPINE ISLANDS.

In last year's estimate there is \$60,000 that was included for the purchase of land and construction work at Paranaque, Philippine Islands. Did you buy that land?

Gen. MENOHER. No, sir.

Mr. ANTHONY. You have spent no money for construction there?

Col. FULLER. None for construction at Paranaque.

Mr. ANTHONY. Now, in regard to the application of the appropriation for this year. Have you furnished for the record or will you furnish for the record a statement showing how that has been allocated, the departments which made up the estimate? That will be in the record?

Gen. MENOHER. Yes, sir.

TENTATIVE REVISION OF ESTIMATES.

Mr. ANTHONY. Now to close the hearing, it is quite certain that we will not be able to give you the amount of money that you are asking for in these estimates, and, roughly, in maximum figures, say, of \$27,000,000, which might be allotted to you for the Air Service. Could you get up a statement showing how you would distribute that amount over the various items that make up this estimate?

Gen. MENOHER. Yes, sir; of course, we will do that.

Mr. ANTHONY. And—that is, how it could be most advantageously distributed?

Gen. MENOHER. I had in mind to bring that point up myself. I can not answer offhand about an item as important as this.

Mr. ANTHONY. I will not put that as a fixed amount; it may be more or less.

Gen. MENOHER. I suggested on Saturday that we should make a recast of our estimate in order that we might have some idea as to how much we would have to cut.

Mr. ANTHONY. Do you think that would give us what we want?

Mr. CRAMTON. I think so. They might figure on such a figure as that, and they might indicate it was not what they want—what would be next in order?

Col. FULLER. That would contain valuable information.

Mr. ANTHONY. If there are any other pertinent facts that come to your mind that we ought to know, you may add them.

(The matter referred to above follows:)

JANUARY 4, 1920.

The attached statement of the proposed distribution of \$27,000,000 for the Air Service for fiscal year 1922 is submitted.

It has been impracticable to distribute among the various items the amount allotted for engineering, and this amount is carried as a lump sum of \$5,770,000, which is \$500,000 more than was contained in the mandatory provision in the appropriation act for 1921, and which includes expenses of all civilians employed in the engineering divisions. This increase is justified by the change from wood to metal construction, which entails a greater amount of experimentation.

The subtotals of the estimates carried for operations are reduced as follows:

	Estimate.	Reduced to.
Expenses of civilian employees (except those in the Engineering divisions).....	\$7,023,206	\$6,523,206
Instruction and operations of troops.....	4,132,701	(¹)
Helium, exploration, conservation, and production.....	1,375,250	875,250
Production of new aircraft and accessories.....	22,720,355	3,015,025
Gas plants, hangars, shops, and landing fields.....	9,018,000	2,356,542
Miscellaneous items.....	634,426	510,214
Fuel and lubricants.....	3,507,059	(¹)

¹ No reduction.

It is noted that only minor reductions are possible in the running expenses as distinguished from capital outlay. These costs of operation are very closely figured as a result of experience gained in the past two years. They agree generally with expenses of the present fiscal year.

The major portion of the total reduction is made up of the two items, "Production of new aircraft" and "Gas plants, hangars, shops, and landing fields." The estimate as submitted to Congress provided equipment for only a little more than half of the authorized Air Service. The present equipment is not only obsolete, but will be positively unsafe to fly by the time the new equipment estimated for will be available. The gas plants, hangars, and shops estimated for are the absolutely necessary adjuncts of the flying equipment. The very conservative estimate for facilities for reserve flyers can not be reduced without impairing the Nation's greatest aeronautical asset—the 5,800 reserve flyers. There is now on hand sufficient flying equipment for these reserve flyers, which will rot if not used.

It is urgently recommended that the following amounts be added to the \$27,000,000 itemized in the attached statement in the order of priority indicated:

I.

Experimentation and engineering	\$2,000,000
0102.401 production of airplanes and spare parts.....	8,000,000
0105.401 production of airships and spare parts.....	608,000
0406.401 extension of Brooks's Field Hangar.....	1,000,000
Total.....	11,608,000

II.

Experimentation and Engineering.....	3,509,000
0102.401 production of airplanes and spare parts.....	8,798,330
0105.401 production of airships and spare parts.....	2,268,000
0406.401 Pacific coast airship station.....	1,345,000
Total.....	15,926,330

In considering the present state of preparation of the Nation for national defense, too great stress can not be laid on the fact that the status of preparedness for aerial defense of the United States is radically different from that of the other combat arms. It is a recognized fact that, in general, there remains on hand from the World War two most valuable assets, namely—a large amount of serviceable equipment which will remain serviceable in storage for a considerable period of time, and a considerable number of trained reserve officers and enlisted men, who, for the next few years will suffer but little depreciation in their military value, and in the case of some officers it may be assumed that the maturity which will result from the addition of a few years' experience in civil life will, in some instances, probably increase rather than decrease their value to the Nation in its national defense.

However, in the Air Service, it should be remembered that owing to a retarded rate of production of aircraft during the war and to the perishable nature of such equipment there will be on hand at the end of the fiscal year 1922 not sufficient aircraft to equip even the Regular Army units. As to the officer personnel of the Air Service, unlike that of the other combat arms, this personnel will remain effective for war use only as a result of occasional flying. These are absolute facts and not matters of opinion, and when the state of

preparedness of the Nation for aerial defense is considered one can not escape the inevitable conclusion that reasonable expenditures made for the purposes of the estimate at this time will result in a greater increase of preparedness than greater expenditures made later.

It is not intended by this statement to convey the idea that the total of the estimate, \$60,000,000, submitted to Congress, would accomplish a full measure of preparation in the fields of aerial defense.

DECEMBER 29, 1920.

Air Service estimate for fiscal year ending June 30, 1922. Distribution of costs under item numbers to make a total of \$27,000,000.

Item No.		Amount
EXPENSES OF CIVILIAN EMPLOYEES.		
0201. 401	Pay of civilians in the office of the Chief of Air Service.....	\$135,350.00
0202. 401	Pay of civilians in the field.....	6,356,156.00
0203. 401	Traveling expenses of civilians on rolls in office of the Chief of Air Service.....	6,500.00
0204. 401	Traveling expense of civilians on field rolls.....	25,000.00
0205. 401	Pay of consulting engineers.....	
0206. 401	Traveling expense of consulting engineers.....	
		<u>6,523,206.00</u>
INSTRUCTION AND OPERATIONS OF AIR SERVICE TROOPS.		
0110. 401	Hydrogen, purchase of.....	300,000.00
0301. 401	Airplanes and their spare parts, maintenance and repair of.....	1,635,262.00
0302. 401	Airships and their spare parts, maintenance and repair of.....	168,700.00
0303. 401	Balloons and their spare parts, maintenance and repair of.....	19,450.00
0305. 401	Engines and their spare parts, maintenance and repair of.....	1,430,213.00
0307. 401	Instruments and accessories for aircraft and engines, maintenance and repair of.....	75,000.00
0308. 401	Machines, general equipment, and tools, maintenance and repair of.....	100,705.00
0209. 501	Ordnance equipment for aircraft, maintenance and repair of.....	14,250.00
0310. 401	Photographic equipment and supplies, maintenance and repair of.....	77,000.00
0312. 401	Radio equipment and supplies for aircraft, maintenance and repair of.....	
0507. 401	Hydrogen, maintenance, equipment, operation of plants for production of.....	82,800.00
0706. 401	Textbooks books of reference, and publications, purchase of.....	59,424.00
0306. 401	Maintenance and repair of equipment, material, and instruments for Air Service Schools.....	64,900.00
0701. 401	Purchase of equipment, material, and instruments for use at Air Service schools.....	407,000.00
		<u>4,432,704.00</u>
MAINTENANCE AND OPERATION OF STATIONS.		
0304. 401	Buildings and grounds at Air Service stations, maintenance and repair.....	
0502. 401	Water.....	
0503. 401	Light and power.....	
HELIUM, EXPLORATION, CONSERVATION, AND PRODUCTION.		
0801. 401	Purchase of land for development of.....	25,000.00
0802. 401	Lease of land for development of.....	
0803. 401	Construction, maintenance, equipment, and operation of plants.....	417,750.00
0805. 401	Experimentation with and exploration for.....	32,500.00
		<u>475,250.00</u>
EXPERIMENTAL AND RESEARCH, ENGINEERING AND DEVELOPMENT.		
0601. 401	Airplanes and accessories.....	
0602. 401	Balloons, airships, and accessories.....	
0603. 401	Engines and accessories.....	
0604. 401	Medical.....	
PRODUCTION OF NEW AIRCRAFT, ENGINES, AND ACCESSORIES		
0101. 401	Special aviation clothing and similar equipment.....	30,000.00
0102. 401	Airplanes and their spare parts.....	946,125.00
0103. 401	Balloons and their spare parts.....	442,700.00
0104. 401	Airships and their spare parts.....	304,000.00
0105. 401	Engines and their spare parts.....	
0107. 401	Instruments and accessories for aircraft and engines.....	250,000.00
0112. 401	Ordnance equipment for aircraft.....	60,000.00
0113. 401	Radio equipment and supplies for aircraft.....	
0705. 401	Machines, general equipment, and tools.....	500,000.00
0901. 401	Photographic equipment and supplies for use in connection with aerial observation.....	412,000.00
		<u>2,045,025.00</u>

Air Service estimate for fiscal year ending June 30, 1922, etc.—Continued.

Item No.		Amount.
	IMPROVEMENT OF STATIONS, HANGARS, SHOPS, AND GAS PLANTS; LANDING FIELDS.	
0406.401	Gas plants, hangars, and repair shops, construction of.....	\$2,356,542 00
	MISCELLANEOUS.	
0111.401	Printing plants at Air Service stations, purchase of equipment and supplies for.	9,000.00
0311.401	Printing plants at Air Service stations, maintenance and repair.....	
0215.401	Printing and binding, Government Printing Office.....	60,700.00
0207.401	Officers' expenses while traveling by air.....	40,000.00
0220.401	Officers' mileage properly chargeable to Air Service appropriations.....	50,000.00
0208.401	Damages, claims for, not exceeding \$250.....	10,000.00
0219.401	Salvaging wrecked aircraft, supplies and services in connection with.....	25,280.00
0209.401	Stationery not furnished by quartermaster.....	53,448.00
0210.401	Subscriptions to foreign and professional periodicals and newspapers.....	8,000.00
0216.401	Miscellaneous services not properly chargeable to other items.....	75,000.00
0218.401	Miscellaneous supplies and equipment not properly chargeable to other items..	115,056.00
	Officers' tuition.....	13,750.00
	Maneuvers, operations.....	50,000.00
		510,214.00
	FUEL AND LUBRICANTS.	
	Fuel and lubricants.....	3,507,059.00
	Total operations.....	21,250,000.00
	Engineering, heavier-than-air (McCook Field).....	\$5,000,000
	Engineering, lighter-than-air.....	750,000
	Total engineering.....	5,750,000.00
	Grand total.....	27,000,000.00

DECEMBER 29, 1920.

Air Service estimate for fiscal year 1922. Redistributive on the basis of 27,000,000 in total estimate.

RECAPITULATION.

Item 0406.401, construction of gas plants, hangars, and repair shops:	
Scott Field, gas plant and gas holder.....	\$400,000
Brooks Field, gas plant and gas holder.....	300,000
Ross Field, hangar.....	135,000
Camp Bragg, balloon hangar and gas house.....	53,000
Camp Benning, balloon hangar and gas house.....	53,000
Seven canvas hangars for use in corps areas.....	84,000
Mitchel Field, 1 airplane hangar.....	100,000
Camps Funston, Jackson, Sherman, Devens, Leavenworth, (erec- tion of 2 expeditionary hangars at each place), at \$20,000....	100,000
Camp Lewis, erection of 4 expeditionary hangars.....	40,000
Eight reserve training centers, at \$125,000.....	1,000,000
Gasoline and oil apparatus for stations.....	91,542
	2,356,542

TUESDAY, JANUARY 4, 1921.

STATEMENT OF BRIG. GEN. WILLIAM MITCHELL, ASSISTANT CHIEF OF THE AIR SERVICE.

PURSUIT, ATTACK, AND BOMBARDMENT AVIATION.

Mr. ANTHONY. Gen. Mitchell, you are looked on as one of the active flying men of the flying service, a man of fighting experience, and we would like, in a general way, to have your ideas of the necessities of that branch of the service.

Gen. MITCHELL. Mr. Chairman, I would like to explain first what I think should be the general idea underlying the development of the Air Service in this country. In order to apportion the money for national defense properly we should make an accurate estimate of all of the capabilities of each branch of the service—that is, what the Army can do, what the Navy can do, and what the Air Service can do. If we do not make an accurate estimate and a possible enemy does make one, we will be under a great disadvantage in case of a great emergency. During the war the Air Service was developed essentially for fighting over the land, as the Allies held the sea to a greater extent than any great combination ever has before. To begin with, aviation was used entirely for observation purposes; that is, for reconnoissance, for the adjustment and regulation of artillery fire, and for keeping contact with the troops so as to report their position. At the end of the campaign the aviation was 80 per cent offensive and only about 20 per cent observation. The moment that airplane attacked airplane the principal mission of the air force was to whip the hostile air force, so as to enable the airplanes to observe, to drop bombs, or attack troops. So that, to-day, the principal mission of an air force is to destroy the hostile air service, just as the mission of an army is to destroy a hostile army.

Offensive aviation has developed along three lines. Pursuit aviation was the first offensive aviation developed as a separate branch: that is, the aviation which pursues hostile aircraft and shoots them out of the air. Pursuit aviation, at the end of the campaign in Europe, constituted more than 60 per cent of all offensive aviation.

The next branch of aviation which was developed was that which carried missiles and dropped them—bombardment aviation, it is called. This started with bombs weighing 25 pounds; at the close of hostilities some were using bombs weighing up to a ton. To-day we can carry more. In connection with bombardment this war has demonstrated the efficiency of high explosives as distinguished from fragmentation. We can explode high explosives on the outside of an object and obtain very great results from that alone. As an example of that I might cite the explosion at Halifax. The results of experience show that air projectiles are the most efficient from the standpoint of explosives of any we ever have had. A one-ton cannon projectile has only 55 pounds of explosives in it. The air projectile weighing that same amount will have from 1,000 to 1,400 pounds of high explosive in it. This is because it is not necessary to give it great weight to have it go straight and insure a good trajectory. Bombardment aviation can use gas projectiles also.

The third branch of aviation developed was for the attack of the armies on the ground, and which we call attack aviation. This branch uses airplanes equipped with a number of machine guns, and we now have ships which carry both machine guns and a cannon, and are armored to cover the personnel and engines. We shot a 2.95 howitzer from an airplane the other day. That is practically a 3-inch gun, and I am convinced that we can fire a 6-inch gun from the air. That 2.95 howitzer was fired from a Martin bomber.

So we have developed three different branches of aviation—pursuit aviation, attack aviation, and bombardment aviation—and, in our country, the proportion should be about 60 per cent pursuit, 20 per

cent bombardment, and 20 per cent attack. In addition there is the observation aviation, which is attached directly to ground or air troops.

USE OF AIRPLANES OVER LAND.

To begin with, let us consider the use of an airplane over land. In the first place, in order to insure protection of observation aviation, of the force you are working with, you have to keep the enemy out of the air to a sufficient extent to let the observation aviation work. That means that you must have an efficient force of pursuit aviation. If you are going to attack hostile bombardment airplanes, you must have pursuit aviation; if you are going to keep attack aviation in advance of the Infantry, you must have a strong force of pursuit aviation.

Mr. ANTHONY. To put them down?

Gen. MITCHELL. Yes, sir. Pursuit aviation is the basis of an air force just as Infantry is the base on which an Army rests.

Mr. ANTHONY. That is what we have been weak in?

Gen. MITCHELL. Yes, sir; we have not had any in this country. We now have a pursuit ship that is as good as any ship of its type in the world.

Mr. ANTHONY. That is the Thomas Morse pursuit ship?

Gen. MITCHELL. Yes, sir. There is no defense against an air force except an air force. No weapons operating from the ground can greatly affect aviation. We lost about one-tenth of 1 per cent of our ships in Europe from antiaircraft fire from the ground. It took from four to five thousand rounds from antiaircraft cannon to hit one ship. The only way you can get protection is to have the pursuit aviation and searchlight and missile-throwing weapons working together.

Mr. CRAMTON. Is there any particular development in the attack on airplanes?

Gen. MITCHELL. You mean from the ground?

Mr. CRAMTON. Yes.

Gen. MITCHELL. There has been some development in Europe. We are still going along in very much the same way. Conditions, however, are very hard, so far as hitting ships in the air is concerned.

Mr. CRAMTON. You referred to the percentage in the last war. In the next emergency is it to be expected that there will be any great advance along that line?

Gen. MITCHELL. I think there will be, yes, sir; but we still attack the antiaircraft gun on the ground and very largely nullify it. Of course, we will have to stand our losses like everybody else. To hit anything in the air, you have got to see it. Actually the only defense against an air force is another air force, and only enough money should be put into antiaircraft artillery which the air units themselves require to work with them. The air is a very big place; it is a three dimension proposition, so an airplane often is able to go through the air or over the clouds so that the people on the ground can not see it.

Mr. Sisson. You do not have to watch for telephone poles and things of that kind.

Gen. MITCHELL. No, sir; and the other fellow can get to you in a much easier way in the air than on the ground. The problem between two armies is not so much a question of whipping the troops

on the front line, but it is a question of destroying the reserves. If, for any reason, you could gain control of the air to a sufficient extent to allow you to surprise the enemy, and the enemy did not know anything about it, as the Germans did in their March, 1918, attacks on the western front, when they practically surprised the Fifth British Army, because they made their principal movements at night, you have a tremendous advantage. But, if you have an air force comparatively equal to that of the enemy, as was the case on the western front, you can not give him any surprise, at least not very much of a surprise, because both air forces neutralize each other. At Chateau-Thierry, because the allied observation aviation worked at night, the German attack was not a surprise at all.

Mr. ANTHONY. Did either side have a pronounced ascendancy in the air?

Gen. MITCHELL. We were beginning to get it at the end of the war. You can see from our ratio of victories that our percentage of air losses was constantly falling in proportion to the number of the enemy that we shot down, showing that we were gradually gaining control. This was only after a series of tremendous air battles. The Germans were so heavily attacked in the air that they were put on the defensive and could not keep up their supply of men and material. The men are the all important things. It is very necessary to keep up your supply of skilled pilots in connection with aeronautical operations. You can usually keep ahead on your material after you get to a certain point of development in your production. It takes years to develop a really efficient aviation personnel.

Reserves can be attacked from the air in two ways. You can hit them with attack aviation when they come up on the roads, the infantry and the artillery in column moving up toward the front lines; also their motor and railway trains. Aviation can also interrupt communication at the various centers where many roads and railways meet. We believe that, in the next war, gas might be used by a barbarous foe on the centers of communication. We know just how much gas has to be put down on those centers to interrupt communication. For instance, take New York, and consider an area in the vicinity of New York 10 miles by 10 miles, or an area of 100 square miles. If two tons of crying gas are dropped by airplanes or airships there once in eight days, it will make everybody wear gas masks and goggles. If we want to keep that place covered with mustard gas, we can put down 70 tons once in eight days, and everybody will have to protect themselves against mustard gas in that area. If we want to kill everybody in that area and use phosgene, we have to put 200 tons of phosgene once in eight days, and it will keep that area covered. All you have to do is to go over that area once every eight days and keep it inundated with gas. The only protection against such a procedure is protection in the air. As to the columns moving up, they will all move at night and our attack aviation is designed to attack those columns. Attack airplanes are armored; they have three-eighths inch armor all over their vulnerable parts. They carry a 37-millimeter cannon and eight machine guns. They are almost developed. We have one type of these ships which we can put into production now. We are still developing them. So much for the use of airplanes over the land or in conjunction with an army.

USE OF AIRPLANES OVER WATER.

Next, we may consider their use over the water. An army fights on land, a navy on the water, but an air force over both. To begin with, we can tell you definitely now that we can either destroy or sink any ship in existence to-day.

BOMBING OF BATTLESHIP "INDIANA."

(See p. 238.)

Mr. ANTHONY. You think the experiments in connection with the *Indiana* were successful?

Gen. MITCHELL. Yes, sir, absolutely. All we want to do is to have you gentlemen watch us attack a battleship.

Mr. ANTHONY. Does the Navy regard those tests as conclusive?

Gen. MITCHELL. All the flying officers do.

Mr. ANTHONY. Do the Navy line officers consider those tests conclusive?

Gen. MITCHELL. I can not answer for them. Their whole training is that the armored ship is the mistress of the sea, whereas, actually, it is just as helpless as the armored knight was when the firearm was brought against him.

Mr. CRAMTON. Do you mean, General, that experiments as vital as those on a subject as vital as that of national defense are not being studied?

Gen. MITCHELL. The air is less known to-day than any other branch of the national defense, and it is less known in this country than in any country in Europe. All we want is a chance to demonstrate these things and have you gentlemen see them.

Mr. ANTHONY. In connection with the result shown on this photograph you have produced before us, how much explosive did it take to accomplish that result?

Gen. MITCHELL. There were 900 pounds of explosive there, of which 880 pounds were T. N. T. and 20 pounds were amitol. It is the ordinary bomb of that capacity developed several years ago. It was just laid there on the deck. Dropped from a height, it would have had much more effect.

Mr. ANTHONY. From what height in the air was that dropped?

Gen. MITCHELL. It was merely laid on the deck.

Mr. ANTHONY. Not dropped from an airplane?

Gen. MITCHELL. No, sir. If that had been dropped from an airplane, it would have blown the ship into fragments.

Mr. ANTHONY. Did you succeed in dropping any of these large bombs from a height?

Gen. MITCHELL. There is no trouble about it at all, but we have never dropped one on a ship from a plane in the air.

Mr. ANTHONY. In connection with these experiments on the *Indiana*, I thought the bombs were dropped from some height.

Gen. MITCHELL. Only dummy bombs were dropped to see what hits could be made. I have here a statement of the total number of bombs tried out on the *Indiana* by the naval air service. That work was done by a personnel with very crude equipment and little experience in dropping them, but they did very well. This is the size of the *Indiana*; this is the size of a modern ship, about 814 feet

long, and this is the danger area around the ship, in connection with the bombs [indicating on chart]. All of them, except about 22, would have been in the danger area of the modern ship.

Mr. ANTHONY. But, in the case of these big bombs, they were laid on the deck instead of being dropped?

Gen. MITCHELL. Yes, sir, they were laid on the deck.

Mr. ANTHONY. How large a bomb did you drop from an airship?

Gen. MITCHELL. The bombs dropped were 50-pound bombs.

Mr. ANTHONY. What damage did they do?

Gen. MITCHELL. They were nothing but dummies.

Mr. ANTHONY. You did not try anything——

Gen. MITCHELL (interposing). Those were Navy tests.

Mr. ANTHONY. I thought they were your tests.

Gen. MITCHELL. No, sir. We have a complete project, involving the use of smoke, the use of gas and attack aviation, to neutralize the antiaircraft attack and to destroy the ship. There are two things about attacking shipping. There is no trouble about destroying any unarmored ship. There was one small bomb which was exploded in the water some distance away from the torpedo boat destroyer *Smith*. The destroyer began to sink and was towed away. All unarmored vessels can be sunk without any trouble at all. The *Indiana* was made to begin to sink by one bomb with only 214 pounds of explosive, placed about 60 feet below the water and 30 feet away from her stern. It damaged the stern of the ship, bent the rudder post and propeller shaft. They towed her ashore and let her sink. The thickest deck we have to pierce is about 3 inches thick, and the maximum amount of any ship we know of is about seven, which is that of the Hood class in Great Britain. Here are the different armors [indicating chart], and the deck armors. There is a 3-inch ballistic deck about four decks down. If you hit that in any way, we are convinced it will put a ship out of action, not only from the shock, but from the fumes, the gas, and the general concussion. If you hit the ship in here [indicating on chart], it will blow off the bow or the whole stern, and that is only with one bomb. We are ready to demonstrate that at any time.

Mr. ANTHONY. What is the situation in regard to the accuracy with which you can drop one of those bombs?

Gen. MITCHELL. We can hit very often, if we have to, because, if necessary, we will come down and lay the bomb on the deck.

Here is a comparison between the accuracy of aerial bombing and cannon fire [indicating on chart]. Over 18,000 yards, we believe the percentage of hits, even with modern methods of fire adjustment, from the shore will be very small. We do not believe that, at 40,000 yards, you will make over 1 per cent of hits with cannon, and we believe that, with the same number of airplanes required to adjust the fire, we can make at least 40 per cent of hits. As a large cannon has an accurate life of only 200 rounds, you will therefore get about two or three hits with it against a ship at 40,000 yards.

Mr. Sisson. That is over that distance?

Gen. MITCHELL. Yes, sir. The distance is nothing to airplanes. Our accuracy is the same up to the limit of our gas capacity. That ship has about a five and one-half hour supply of gas [indicating

photograph], and she can work 200 miles off the coast. It is just as accurate at 200 miles as it is near the shore. All other countries have taken that into very serious consideration.

AIR PROGRAM OF FOREIGN GOVERNMENTS.

Mr. ANTHONY. Have you a knowledge of the air programs of other countries?

Gen. MITCHELL. Yes, sir.

Mr. ANTHONY. How extensive are they; that is, the air programs of the leading countries?

Gen. MITCHELL. The French are keeping their air force in service—a force of 3,000 ships being kept up. The French Air Division, which has approximately 1,600 ships, is in Alsace Lorraine now, and it is planned to be used as their offensive force in case any trouble starts. It is their first line of defense. The British have an air force in their own country and also in the colonies, and that is being developed largely to fight over water. It also is their first line of defense. They do that by putting their aircraft on aircraft carriers and having them go out and fly over the water. They can take any of their airplanes and put them on aircraft carriers and go out and fight, and then, in addition to that, they can attack hostile water vessels at any distance up to the limit of their fuel capacity.

SHIPS FOR AIRCRAFT CARRIERS.

Mr. ANTHONY. Is that kind of service a part of their navy service, or do the land air forces do that work?

Gen. MITCHELL. The air force does that; it is an independent branch coequal with the Army and Navy. I have projects here for aircraft carriers with ships that exist to-day. I would take the *Von Steuben*, the *Agamemnon*, and the *Leviathan* and transform those three ships into aircraft carriers, including oil-burner installations, for \$12,000,000. We can put on this vessel one pursuit group of 100 airplanes, and we can put on the *Imperator* one squadron of bombardment planes, and we can put on the other ship two squadrons of attack planes. If we had those, I do not think any navy could do much business now against us. We could attack opposing shipping wherever we wished, and gain the ascendancy. These vessels have the same speed as the fastest battleship—about 23 knots. We should build new carriers with 40 knots an hour. Those changes can be made rapidly, and it would give us a fighting force such as no other country except England has. There is no reason why it should not have been done long ago. Personally, I think it is foolish to send any navy out against England to-day with the air force which she has. I can not see any result from it except destruction. She can concentrate her whole air force wherever desired, over land or water. It is a single force and not split up.

Mr. CRAMTON. That is based on an air force, and not on our capital ships?

Gen. MITCHELL. Yes, sir.

Mr. SLEMP. Why is it, if your statements are true—and I am not casting any doubt upon them at all—that you are not able to con-

vince the high ranking officers of the Army who have the consideration of these problems? For example, Gen. March told us that, if some foreign power defeated our navy, they could land any number of troops on our shores that they pleased, without reference at all to any air force we might have or any activity that our air force might be engaged in. If these statements of yours are true, why is it that these officers can not see the light? What is your explanation of that?

Gen. MITCHELL. We are presenting the situation to you, and we are ready to demonstrate this thing. If you allow no air force, not only will an opposing fleet land at will, but their aircraft will fly all over our country.

Mr. SLEMP. Why can not the higher officers of the Army see it?

Gen. MITCHELL. You are to judge which is the best evidence. We are ready to demonstrate every statement we make.

Mr. SLEMP. What does that mean? They are intelligent individuals, and they want to get the best defense they can for the country.

Mr. CRAMTON. Is it not for the same reason that confronted Ericsson, in that after he had demonstrated the success of the *Monitor*, still he could not get the ear of the high ranking officers of the War Department?

Gen. MITCHELL. We can show right straight through from the beginning how the thing has been held down, first in Prof. Langley's time and then in the Wrights' time, but to-day it is not quite as bad as it was, although it is almost as bad.

Mr. ANTHONY. It was not held down during the war.

Gen. MITCHELL. We had nothing to do about that. So far as the mere amount of money put into the thing is concerned—you have put in now over \$100,000,000 during this last year. The list of money being expended for the Air Service in this country is roughly as follows. This does not include many items of maintenance, expenses of sick and retired lists, or things of that kind. The items are approximately as follows:

(a) Under Army appropriations we find the following:

Air Service.....	\$33, (000), (000)
Maintenance and operation—	
This appropriation is to be expended in part as follows:	
Experimental and research work.....	\$5, 250, (000)
Production and purchase of new airplanes and equipment.....	6, (000), (000)
Claims.....	150, (000)
For establishment of buildings and improvements at stations.....	245, (000)
For purchase of Selfridge Field.....	190, (000)
Military surveys and maps.....	100, (000)
Bureau of Steam Engineering radio shore stations..	20, (000)
Increase for aviation Signal Corps, 1918.....	24, 465, 187
(Closing up old contracts and claims.)	
For pay, allowances, etc., of the Army Air Service.....	25, 300, (000)
Estimated on 1,540 officers, at \$4,000.....	\$6, 160, (000)
16,000 enlisted men, at \$1,200.....	19, 200, (000)
Proportionate part of appropriation for the subsistence of the Army based on 16,000 enlisted men in relation to 280,000; the proportionate part of \$32,000,000.....	1, 800, (000)

(b) Naval aviation:

Procurement, production, operation, and maintenance-----	\$20,000,000
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This appropriation to be expended as follows:	
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Necessary aircraft-----	\$3,883,400
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Necessary equipment-----	300,000
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To continue construction of 1 airship (authorized)-----	1,500,000
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New construction at stations-----	4,962,000
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New equipment for training-----	100,000
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Maintenance of plants and overhauling--	6,044,000
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Experiments and development-----	2,935,000
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Pay of classified force-----	275,000
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Aberdeen Proving Ground, for construc- tion of 1 steel hangar to accommodate 1 U. S. Navy C-2 airship-----	150,000
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Expenses of investigation committee on establishment of aviation bases at Sand Point, Wash., and Port Angeles-----	50,000
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Pay of Navy personnel-----	8,000,000
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Estimated on 500 officers, at \$4,000-----	2,000,000
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Estimated on 5,000 enlisted men, at \$1,200-----	6,000,000
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(c) Post Office:

To purchase airplanes and maintain aerial mail service--	1,250,000
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Alaska mail route (subject to disposal of Postmaster General) -----	255,000
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To establish new aerial mail routes at discretion of Postmaster General-----	1,250,000
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(d) Fortification for seacoast defenses—installation of search-
lights and replacements including those for—

Antiaircraft defenses-----	566,250
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Air Service station, Hawaii-----	1,300,000
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Air Service station, Panama-----	239,100
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Air Service station, insular possessions-----	302,046
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(e) Forest patrol-----	50,000
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(f) Miscellaneous:

National Advisory Committee for Aeronautics-----	200,000
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Bureau of Standards—for investigation of standardiza- tion of methods and instruments employed in radio communication -----	30,000
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To develop methods of testing and standardizing motors, tools, and instruments in response to the requirements of aeronautics-----	15,000
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Officers to take aeronautical engineering at colleges and universities and for textbooks necessary therefor-----	(¹)
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Government Printing Office-----	50,000
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War Department -----	\$250,000
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Navy Department -----	250,000
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(g) General Army appropriation:

Proportionate part of all appropriations for regular sup- plies of \$28,000,000 based on 16,000 enlisted men, as compared with 280,000 for the whole Army-----	1,600,000
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Incidental expenses based on same proportion-----	357,000
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For development, manufacture, and purchase of airplane bombs and for development, test, manufacture, and purchase of sighting devices for bombs-----	1,000,000
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For small arms target practice-----	28,600
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Total-----	121,168,183
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¹ Unexpended funds.

USE OF AIRPLANES IN BATTLE IN ARGONNE FOREST.

(See p. 386.)

Mr. ANTHONY. You think we have made more advance in the last year than in previous years?

Gen. MITCHELL. We have made a great deal of advance in the last year, and particularly in two years.

Mr. SLEMP. You have not a single practical illustration of the success in battle of the experiments which you think could be put effectively into use.

Gen. MITCHELL. Yes, sir; we have.

Mr. SLEMP. I am talking about their use in battle.

Gen. MITCHELL. In so far as the ships are concerned?

Mr. SLEMP. So far as the use of airplanes against a naval force or an air force is concerned you have not an illustration of a single successful attack or defense, have you?

Gen. MITCHELL. Yes, sir; we have.

Mr. SLEMP. Where?

Gen. MITCHELL. Take the battle of the second day at Montfaucon in our attack in the Argonne. Three divisions were put through a little place called Arcourt, and a congestion of transportation took place there which did not move on the first day for about 17 hours, and on the next day for about 13 hours. The Germans immediately saw it and started their air attack on us. We saw it as quickly as they did, and we attacked all their airdromes with bombardment aviation. We put all our pursuit ships over their lines. The result was that their attack aviation was not protected by their pursuit aviation, and our pursuit aviation was left free to attack their attack aviation. We did not lose any motor transport at all, and we shot down during the month about four times as many ships as they did.

Mr. SLEMP. That is an attack of one airplane against another airplane.

Gen. MITCHELL. Perhaps I did not understand your question. We kept those people off.

Mr. SLEMP. You kept the airships off?

Gen. MITCHELL. Yes. You mean the direct land attack?

Mr. SLEMP. Yes. You are substituting airplanes for something on the land or on the water?

Gen. MITCHELL. No, sir; I am saying we should first get control of the air, and then work directly in combination with whatever is on land or on the water to further the main object of the campaign. You ask me for a specific instance.

Mr. SLEMP. I am trying to get a specific instance of the elimination of this water or land material.

Gen. MITCHELL. You will never eliminate the land forces entirely from the air, but you will greatly affect them.

Mr. SLEMP. Not as against other air vessels.

Gen. MITCHELL. I can give you a specific instance on land.

Mr. SLEMP. Let us take the land and the water. You were referring to the water.

Gen. MITCHELL. We have no specific instance except the sinking of some merchant vessels by torpedoes during the war.

Mr. ANTHONY. By torpedoes launched from airplanes?

Gen. MITCHELL. Yes, sir.

Mr. ANTHONY. Where were any vessels sunk?

Gen. MITCHELL. First in the Baltic, and then one or two in the North Sea, by the Germans.

Mr. SLEMP. Were those merchant vessels armed?

Gen. MITCHELL. No. There is nothing to that. That is the only thing we have in the war, aside from the observation that was carried on by the Zeppelins. Neither was there any illustration in the Civil War or the Revolutionary War, or any war, because aircraft had never been designed and armed essentially for the attack of naval vessels.

EFFECTIVENESS OF AIR SERVICE ON THE WATER.

Mr. SLEMP. Have any of the other nations any illustrations by which you could demonstrate the effectiveness of the air service on the water?

Gen. MITCHELL. There have been experiments carried on by England that we do not know about.

Mr. SLEMP. I am not speaking about experiments, but operations in actual war.

Gen. MITCHELL. No, sir, there were none during the war of any importance.

Mr. SLEMP. Then this war was conducted for four or five years without airships demonstrating any effective usefulness outside of keeping other airships or other air vessels off; that is, so far as naval vessels are concerned?

Gen. MITCHELL. That is correct; but there was no war on the water which involved aircraft to any great extent.

Mr. SLEMP. Then we have got to eliminate the experiences of the past in considering the future and go on theoretical possibilities.

Gen. MITCHELL. It is not theoretical, as our experiences point decisively to what I have said.

Mr. SLEMP. They had their chance for five years and they did not do it.

Gen. MITCHELL. They did not have the equipment to do it. The war in Europe was essentially one on land. It was not a naval war. The Allies controlled the sea with greater security than any nation ever controlled the sea, and they concentrated all their air forces on land, where the maximum decision was being sought.

Mr. SLEMP. But at the same time Germany was controlling the air.

Gen. MITCHELL. No, sir, Germany was not. This same conservatism in the development of new methods of war is what has wrecked many nations before and what has made every war we have had dangerous to our well-being and very expensive.

Mr. SLEMP. They sent their airplanes over London and Paris.

Gen. MITCHELL. So did we send our ships over the German lines, and to much greater extent than they did over ours.

Mr. CRAMTON. In connection with that matter may I ask you this question? Is it not a fact that in England to-day the great issue, which has become a great popular issue, that is attracting great attention throughout the island, is the question of the reversal of their naval policy by reason of the possibility of attack from the air?

Gen. MITCHELL. Yes, sir.

Mr. CRAMTON. And a great section of those naval experts are insisting that the advantage of the capital ship is largely in the past by reason of the possibility of attack from the air?

Gen. MITCHELL. Yes, sir.

Mr. SLEMP. They have their submarines, and that is an important feature.

Mr. CRAMTON. Certainly; they are considering attack from both directions.

Gen. MITCHELL. We should demonstrate the matter conclusively as we go ahead, but we ought also to try to avoid mistakes by not getting too far behind. Eventually, you will find that, dollar for dollar spent, you will get more from an air force than from submarines, as an air force will both protect sea communications and destroy hostile vessels.

Mr. Sisson. I presume the English have about the very best talent they have both in the army and in the navy, taking into consideration the situation in reference to all of continental Europe; and, if England has adopted the policy you have just indicated, it means that she has got enough experience out of this war, or out of certain experiments or scientific studies in the development of air effectiveness, to warrant her in the carrying out of the policy she now adopts of absolutely controlling the air as she has heretofore tried—and successfully—of controlling the sea.

Gen. MITCHELL. Yes, sir; that is absolutely the case. The English air force has made several attacks in maneuvers against fleets, in which the air force has theoretically sunk the naval vessels.

Mr. Sisson. If England has adopted that as the best policy, taking into consideration all the great dangers of attack which she has on account of proximity to what might possibly become enemy nations, it would simply accentuate the idea that the United States might make some investigation of the effectiveness of its defense through its Air Service; and, if not to do more than imitate, at least not to get too far behind in the development of that service.

Gen. MITCHELL. Yes, sir. We can easily lead at a comparatively small cost. We have the men, material, and factories all within our own country. No other nation is so well placed.

Mr. ANTHONY. If the theory you advocate is correct, does it not mean that the whole present system of coast defense will be made obsolete?

Gen. MITCHELL. Yes, sir. Our system of coast defense to-day is wrong. The only way to really defend a coast is with aircraft and mobile troops and their accessories.

Mr. ANTHONY. You virtually propose to wipe out the fixed coast defenses?

Gen. MITCHELL. Not entirely. I think we ought to have some. We ought to keep a certain number of fixed guns around the naval ports and the air ports, but a wholesale emplacement of heavy artillery all over our coasts is a useless waste of money and may create the impression of security when, actually, it is a point of weakness.

Mr. ANTHONY. You think the most effective way to destroy a hostile fleet is through the air instead of by means of the guns on land?

Gen. MITCHELL. Yes, sir; ships will not expose themselves to the fire of guns on land. What is the use? You can not have them everywhere. They are fixed in position, have a limited range, and an enemy will know where they are.

Mr. Sisson. In other words, you can reach them 200 miles from the shore before they get close enough to do any damage to our own shore?

Gen. MITCHELL. Yes, sir. You have two considerations to think about. One is the amount of money you should put into something, and the other, how much you can get out of it. A 16-inch railway gun would cost about \$500,000, exclusive of the engines, the ammunition, and the cars.

Mr. SLEMP. You mean the coast-defense guns?

Gen. MITCHELL. I am speaking of the railroad guns.

Mr. SLEMP. There are not any railroad guns in the coast fortifications. They do not have cars. You mean the emplacement?

Gen. MITCHELL. I am referring to railway artillery in which the car goes with the gun that costs that much money.

Mr. SLEMP. Those are 14-inch guns, and the 14-inch costs about \$150,000.

Gen. MITCHELL. The 14-inch gun costs \$160,000, the movable mount \$200,000, and its accessories much more. The 16-inch gun would cost about \$500,000 with its railway carriage.

Mr. SLEMP. The mount costs a little bit less than that.

Gen. MITCHELL. I believe the largest ones would cost about \$500,000. Their ammunition costs about \$1,800, with the powder charge for the armor-piercing projectile. We can build ten bombardment airplanes with that amount of money, and our one-ton ammunition, carrying twenty times as much explosive, will cost about \$900. That coast-defense gun is limited to a life of 200 rounds, and the only limit of the airplane is the life of the motor. Those guns will make probably not over 1 per cent of hits at 40,000 yards, while the airplane percentage of hits is the same at any distance. The vulnerable part of our country is from the Chesapeake Bay up to Boston, and from New York to Chicago. By having an air force ready for action somewhere in New Jersey, you can reach any part of that area within two or three hours, whereas you could not do it in less than a day or two with those guns, and then they could have little effect. You must remember that it takes an hour at least to put those guns into firing position, and we can go 110 miles an hour with our bombardment airplanes—much more with our pursuit. We can shift our air force within 25 to 30 flying hours from the east to the west coast, and from the north to the south in the same proportion of time. Our airplanes have gone from New York to Nome, Alaska, in 56 hours' flying time. You must remember also that these battleships cost \$45,000,000, and we can build a thousand airplanes for the cost of each battleship. All we want in connection with this matter is to have you put the money where it will do the greatest good. We do not ask you for more money than we had last year. I think the figures will show that you are spending over \$100,000,000 on aviation this year.

Mr. ANTHONY. You mean the combined appropriations?

Gen. MITCHELL. Yes, sir. We are losing at least 30 per cent of efficiency on account of the way it is being spent, and it is not being developed along the line I spoke of except by our Air Service.

Mr. ANTHONY. In the estimate you submitted to us is it proposed to use any of that money for remodeling these ships you referred to awhile ago so that they can be used as airplane carriers?

Gen. MITCHELL. No, sir; none whatever. I merely mentioned these to show how we could concentrate our offensive aviation over the water.

Mr. ANTHONY. Or for the creation of the sea defense of the kind you mentioned?

Gen. MITCHELL. No, sir; except in its application from land bases as has always been contemplated. For instance, with an air-force base on Porto Rico, we can defend the Panama Canal from navies by watching the sea interval of 60 miles between Cuba and Haiti, of 100 or so between that island and Porto Rico, and of 360 miles between Porto Rico and South America. That is the true defense of Panama from the east.

Mr. ANTHONY. This is all new, in addition to the estimate?

Gen. MITCHELL. We will supply the force from the amount you are giving us according to the general ideas I have mentioned. We are asking you for \$17,000,000 for the construction of airplanes for the units we now have in service—just as the Infantry asks for rifles to arm their men.

COMBINING AIR SERVICES.

Mr. ANTHONY. Your argument really leads up to the advocacy of a combined air service.

Gen. MITCHELL. There is no other efficient solution of the air problem, if you are going to get on a basis of efficiency. If you scatter the air force all around, it leads to double overhead, to a double system of command, and to many other difficulties. It has been proved wrong everywhere. We had ships flying over the vessel on which Senator Harding returned from Panama the other day, and the Navy had some airships there and we were getting in one another's way. It would be fatal in war, as it was in Europe at first.

Mr. ANTHONY. And they were all under separate commands?

Gen. MITCHELL. Yes. The British at first had the same thing, but they learned better when the German raids were on during the war. The German Gothas flew over London without any particular difficulty just for that reason. The Army Air Service worked over the land and the Navy over the water. Neither did anything; the German Gothas were slow ships, but there was no defense whatever against them. Finally, when they got a united air service and the air defense organized, it stopped the airplane and Zeppelin raids.

Mr. CRAMTON. Have any of the other nations adopted a unified air service?

Gen. MITCHELL. Yes, sir: England has an entirely unified air service. France has a bureau of civil aviation, and still has an army and a navy air service, but their navy air service amounts to almost nothing. Italy has her army air service run everything. It makes details for work with the navy, as I understand it.

Mr. CRAMTON. France is going to considerable lengths to encourage the development of commercial aviation, is she not?

Gen. MITCHELL. Yes, sir. I would like to say a word about a commercial air service. An airship service between New York and Chicago, on the basis of 3½ cents a mile for passengers, with a capitalization of about \$25,000,000, allowing for 50 per cent depreciation of your equipment every year, will, I believe, pay 100 per cent after three years.

Mr. CRAMTON. To what extent is commercial development of that kind beneficial to our national defense?

Gen. MITCHELL. Every pilot, every ship, and every airdrome are distinct assets as a part of the national defense. What the Post Office Department is doing is a most efficient adjunct to the national defense. We could not have gotten an airway across the country unless that had been done. Airways are essential to the operations of military and commercial aviation.

Mr. CRAMTON. I have recently read that Germany despite the treaty restrictions was going to proceed, within the limit of the restrictions, to get ready to further the development of commercial lines, as far as the treaty permits. This morning I clipped an item with reference to the French plans in which I note that France is devoting subsidies to ventures of the kind you refer to.

Gen. MITCHELL. Germany sees in the air her means of controlling the sea in the future, and her principal weapon of offense.

Mr. CRAMTON. There has recently been held in Germany a meeting or a reunion of those men who served in the air service during the war, and every step possible is being taken for development along that line.

Gen. MITCHELL. That is true, and most important from the Germans' standpoint.

NEED OF VESSEL FOR DEMONSTRATION PURPOSES.

Mr. SLEMP. It seems to me the principal problem is to demonstrate the certainty of your conclusions.

Gen. MITCHELL. Give us the warships to attack and come and watch it.

Mr. SLEMP. How much money would you need for demonstration purposes?

Gen. MITCHELL. We need no money to demonstrate the proposition; all we want are the targets and to have you watch it.

Mr. SLEMP. That involves the supposition that your conclusions are correct. You are building an air force around your conclusions, and you are asking for \$17,000,000.

Gen. MITCHELL. That is not based entirely on my conclusions. It is the best practice in the world for the employment of an air force. The \$17,000,000 asked for is for the existing Army Air Service authorized by law.

Mr. SLEMP. How are you going to demonstrate that your proposition is right; and that, if it is correct, that that is the course to be pursued? You will save millions of dollars if you can demonstrate it. How much money do you want for that purpose? How many vessels do you need for these experimental purposes?

Gen. MITCHELL. We need nothing for demonstration which we have not at present. We need \$17,000,000 to equip the units now existing with modern and safe airplanes. Those we have on hand now are obsolete, old, and becoming unsafe. We have got to have tactical units in the air to be able to fight, just as you have to have a battalion of Infantry. We only ask enough for one unit of each class of aviation. If you do not see fit to grant it, remember that what we have learned during the war will be lost very largely because it will not be kept up.

Mr. SLEMP. Suppose you demonstrate that with the vessels you now have; then you do not need any more vessels?

Gen. MITCHELL. We need the airplanes for what was demonstrated time and time again in the European war, and only for one unit of each kind. If you do not authorize it, we shall lose all we learned in the war. It will have the same effect—except worse—of not allowing any rifles for a battalion of infantry, no cannon for a battery of artillery, and no horses for a troop of cavalry.

Mr. SLEMP (interposing). I am talking about hitting naval vessels.

Gen. MITCHELL. If you want a demonstration of the effect of bombardment against a naval vessel, we are prepared to give you that demonstration now.

Mr. CRAMTON. If you had the ship at which to shoot.

Gen. MITCHELL. Yes, sir.

Mr. SLEMP. You have a platform on the surface of the water if you have a ship.

Gen. MITCHELL. That does not show anything. We have done that for years, and it has convinced no one.

Mr. Sisson. When could you make a demonstration of such an experiment as you have in mind?

Gen. MITCHELL. At any time you wanted to do it—to-morrow, if you wish.

Mr. ANTHONY. Why has not that been done?

Gen. MITCHELL. The Army and the Navy have not seen fit to do it. The Navy conducted their own trials, and they have turned a ship over to the Army to have it shot at with coast artillery guns. I have requested repeatedly to have a war vessel turned over to us, but they evidently have not considered it necessary. They think that these tests they have had were sufficient. But we, in the Air Service, do not think they were. We want to demonstrate to a committee of Congress what we can do now and what we can do with a development of aircraft and armament in the future.

Mr. ANTHONY. You would recommend that a vessel of the Navy be turned over to you to make such experiments?

Gen. MITCHELL. Yes, sir; both armored and unarmored vessels. Armored vessels can not exist without their unarmored auxiliaries. There are plenty of vessels now that can be used for this purpose.

Mr. ANTHONY. The point of difference between you and me is just this, that I believe theoretically your proposition is all right, but from a practical standpoint I do not believe you could hit a hostile ship under battle conditions with such an explosive as would be necessary to destroy it.

Gen. MITCHELL. All we want is an opportunity to demonstrate it. We, in the Air Service, have had lots of experience in reference to

it, and we have had lots of experience with antiaircraft guns. It is not mere idle talk. At any distance over 20,000 yards, we can make a very much greater per cent of hits than artillery can. Let me say something about this proposition from the military aspect of the situation. Take the last war, for instance. Of course, we did not have any aviation in the Civil War, so we have no experience to go on from that war. Take the German situation in this war. Their first problem was to get into France as soon as possible. What was the bar against them? It was a system of fortifications through Belgium, and then there was a problem of going through the Duchy of Luxemburg, that no armies heretofore had been able to go through in force on account of its poverty in food and supplies. They made howitzers to destroy the turrets of the fortifications in Belgium. They provided their army with motor transport to go through Luxemburg, and the result was that, on the first attack, the whole system of defense against their going through Belgium fell. There was nothing left. Practically the whole thing fell instantly because there had been no provision made against that sort of attack. If you do not make adequate provision against an air attack on us, if we have any trouble, we are going to catch it all over the country in a way that has never been done before. That leads us to a consideration as to what our policy should be in respect to aviation.

Our aviation doctrine should be to find out where the hostile air force is, and to destroy it as rapidly as possible. Our policy should be to keep as large an air force as we need for local defenses behind the Atlantic coast, a similar force behind the Pacific coast, and, between the two coasts, as much as is necessary so that, when it reinforces either coast, it will be sufficient to secure and maintain our ascendancy in the air. To do this will not cost us any more than we are spending to-day on aviation, and, if you will make an annual appropriation for the construction of aircraft for three years equal to the amount required to build one battleship to-day, it will give us the necessary force.

PROPOSED PLANES NEEDED FOR AIR SERVICE.

Mr. ANTHONY. I suppose you will elaborate your plan in the hearing?

Gen. MITCHELL. What we need behind the Atlantic coast is a brigade of 600 airplanes—60 per cent pursuit, 20 per cent attack, and 20 per cent bombardment; behind the Pacific coast a brigade of 600 airplanes similarly organized, and, throughout the country in general, an air division of two brigades of 1,200 airplanes that can be shifted either way, or an offensive force of 2,400 airplanes. As an auxiliary to these, for observation along our coasts and frontiers, there should be 17 surveillance flights of 6 airplanes—or 102 airplanes—deployed at 200-mile intervals along our coasts for the purpose of surveillance and reconnaissance off the coasts, both for the air force, the Army, and the coast defense. This means a total of 2,502. For observation purposes, the Army and Navy combined will need not to exceed 700 airplanes if efficiently organized and applied. Or a total force of some 3,202 airplanes—about the same air force

that France now has. A committee of officers not belonging to the Air Service, but who had extensive experience in the war in Europe recently recommended that our air force should consist of 3,800 airplanes.

In my opinion, this force should be one-sixth with the colors and five-sixths reserves. On the basis of a construction program of \$45,000,000 a year, which is the cost of one battleship, this force can be built up and made efficient within three years. In other words, if you will turn over to a united air force what has been made available for aviation during this year, this air force can be constituted and maintained.

I want it to be distinctly understood that I do not consider that the air force is to be considered as in any sense supplanting the Army. You have always got to come to man power as the ultimate thing, but we do believe that the air force will control all the communications, and that it will have a very great effect on the land troops, and a decisive one against a navy.

Mr. CRAMTON. In answering Mr. Slemp's question you were diverted to a discussion of an attack on the sea; but in the instance which you detailed, in which we were saved by that attack upon the enemy in the air, was an attempt made to use our aircraft in an attack upon the enemy's armed forces on land after having gotten control of the air?

Gen. MITCHELL. We did it all the time.

USE OF AIRPLANES IN BATTLE IN ARGONNE FOREST.

(See p. 378.)

Mr. CRAMTON. If there was any effort made in attacking the land forces from the air after the air mastery was secured, tell us about that.

Gen. MITCHELL. We attacked troops on the ground continually, particularly during the latter part of the operations in the Argonne. Every column we could find proceeding to the front in the daytime was attacked. The roads were practically kept clear of hostile troops in the daytime, and were used only at night. Our means of working at night were not what they are to-day. We can find those places with parachute flares now. In so far as the use of machine guns is concerned, we had to use our pursuit ships for that purpose because we had no attack airplanes. We had to make a diving attack. It is an easy thing to clear the ground with a horizontal attack, with the guns firing down. During the Battle of St. Mihiel there were several instances where we scattered troops on the ground, assisting the Infantry distinctly in capturing them.

Mr. CRAMTON. With the use of bombs?

Gen. MITCHELL. I can give you one very specific instance. In the middle of October, 1918, Gen. Pershing told me there was a big concentration of troops, and he asked me if we could not use bombs against them to stop a counterattack taking place a few miles north, west of Verdun. We put one formation of 320 ships over for bombardment, with pursuit ships to protect them, and we dropped 22 tons of bombs in that area, and no counterattack ever took place.

all, and we did not lose a ship, but shot down 12 enemy ships during the attack in spite of the German antiaircraft fire and pursuit attack.

Mr. CRAMTON. What about such action on enemy troops?

Gen. MITCHELL. We know that had a very great effect on them, but we do not know in that particular case exactly how many of them were killed or disabled.

Mr. Sisson. You were about to finish your statement.

Gen. MITCHELL. We dropped 69 tons of bombs in 24 hours that day in the area of the First Army, on that particular place, and on their centers of concentration by day and night. This was the heaviest bombardment attack ever made. To-day, with the same number of airplanes of modern type, we could drop over 300 tons, or 300,000 pounds of explosive, which is 50 per cent of our bombs. Allowing 15 pounds with 20 per cent of explosive for a 3-inch cannon would require 100,000 rounds, or 1,500,000 pounds of projectiles. We bombed the centers of concentration first to interrupt the communications through those centers, which was done to a great extent; and second, to make them defend that particular part of the line with their pursuit airplanes to keep them away from our lines. The best criterion of the effect of bombardment against any place is the vigor with which they defend it. They concentrated all of their pursuit aviation over three places—over Grand Pre, over Romagne, and in the vicinity and down the river from Sedan all the time. As to specific instances, we hit railroad trains loaded with ammunition at Longuyon, and there were trains of troops on each side: 550 men were killed according to the German report, and a corresponding number wounded. One day, one of our bombardment squadrons hit in a division of troops and killed 260 and wounded a corresponding number. I have seen an ammunition factory hit with two bombs, destroying it for the war. The bombardment against the city of Nancy caused the complete evacuation of that city. We hear a great deal about noneffective bombardments.

Mr. SLEMP. What was the effect on American troops?

Gen. MITCHELL. We kept the Germans off pretty well; they had hardly any effect, but it was due to the fact that we attacked their airdromes in the way we did. Against the British troops it was frightful for a long time, but by the system we adopted of pushing our offensive aviation as far over that as we could, we were able to keep them off almost entirely.

Mr. Sisson. May I ask whether or not the bombing of the cities of France, Paris and other cities, so far as its effect was concerned, was minimized in the newspapers during the war?

Gen. MITCHELL. Yes, sir; always, in order to keep up morale. The fact of the matter was this. The object of the bombardments of Paris, especially the last one, was to congest the means of transportation around Paris so that the supplies could not be sent up from there to the front. Paris was at a great distance from the German lines in those days for effective bombardment. They tried it both with cannon and with bombardment airplanes. The result was that between those two things, the railroads and every road around Paris were congested with people running out to such an extent that it interfered very materially with the shipment of munitions to the front and at a very important time. Then, too, it made the factory workers

nervous and cut down their work 30 or 40 per cent. They kept everything dark at night, and the total effect, even of that very small bombardment, was very great.

Mr. ANTHONY. Has not a board recently appointed for the purpose found that it was impracticable to prepare this country for war in time of peace, and that it was more practicable after the declaration of war to develop the air program?

Gen. MITCHELL. There was a board which recommended an air program of 3,800 planes and 24 airships to be prepared in time of peace.

Mr. ANTHONY. What board was it that made the finding I just mentioned?

Gen. MITCHELL. I do not know what board that was.

Mr. ANTHONY. Was the board you refer to a joint Army and Navy board?

Gen. MITCHELL. No, sir. It was an Army board of experienced Army officers that recommended the organization of the Army.

Mr. ANTHONY. Did it not decide that it was not practicable to prepare for war in the air in time of peace?

Gen. MITCHELL. No, sir, that board did not do that: quite the contrary—it decided that it was and should be done at once.

Mr. ANTHONY. Did it not decide that it was not practicable to put the country on a war basis in time of peace, so far as the air was concerned?

Gen. MITCHELL. No, sir.

Mr. ANTHONY. There was such a board that made such a finding.

Gen. MITCHELL. I have not seen that report; I do not know of it. But, if such a report was made, their conclusion is wrong, because it can be done in time of peace with a small expenditure of money. And, if it is not done in time of peace, it will be all over when war is declared because the air force will be the first to attack. The great trouble now is that whenever an air question is up for discussion, mostly individuals who are not air officers are consulted. No one is capable of passing on air matters except an air officer trained in the work.

TYPE OF PLANES, ETC., NEEDED AND THEIR COST.

Mr. ANTHONY. In regard to these appropriations, getting away from this comprehensive plan of yours for a moment, what provision do you consider absolutely essential in order to keep our present aircraft up to the top notch with the latest type of planes?

Gen. MITCHELL. Our experience shows that our air force in existence to-day should be equipped with airplanes equal to the best that any nation has.

Mr. ANTHONY. Take the three groups of planes. How many of this new type of pursuit machine which you say you have finally decided on as being the proper type of machine are absolutely necessary to provide for, in the way of manufacture?

Gen. MITCHELL. We ought to have 400 of those, 112 for next year. Those figures have been submitted to the committee, I believe, and the figures as submitted are correct. For the pursuit planes, we are only asking for 112 next year.

Mr. ANTHONY. What are 112 pursuit planes going to cost?

Gen. MITCHELL. They will cost about \$1,369,200.

Mr. ANTHONY. That is, the cost will be roughly \$30,000?

Gen. MITCHELL. Yes, sir, with engines, spares, armament, and instruments.

Mr. ANTHONY. How many attack machines do you propose to build?

Gen. MITCHELL. Forty-five is all we ask for; we should have 200.

Mr. ANTHONY. What are they going to cost?

Gen. MITCHELL. \$1,395,000.

Mr. ANTHONY. How many new bombardment planes do you consider absolutely essential?

Gen. MITCHELL. About 250.

Mr. ANTHONY. What are they going to cost?

Gen. MITCHELL. About \$7,567,500. We have the engines for them.

Mr. ANTHONY. What is going to be the actual cost of construction of that number of machines?

Gen. MITCHELL. With 462 observation and 200 training planes it will be \$17,784,655. The new twin-engine bomber is very satisfactory.

Mr. SLEMP. Its unit cost is \$50,000?

Gen. MITCHELL. Two hundred and forty-four of them will cost \$7,567,000.

Mr. ANTHONY. Of the three types of ships which you are asking for, which is the most essential?

Gen. MITCHELL. Of course, the pursuit ship is the most essential always, because you can not control the air without the pursuit ships.

Mr. ANTHONY. That is the first thing you ought to have?

Gen. MITCHELL. Yes, sir; and the next is the bombardment ship and the next is the attack ship.

Mr. ANTHONY. What about the DeHaviland planes you have at present? Is the DeHaviland a pretty good attack plane?

Gen. MITCHELL. No, sir; it is an obsolete combination observation and day bomber.

Mr. ANTHONY. That plane will not serve the purpose?

Gen. MITCHELL. Not against a first-class power, and they are getting old and dangerous.

Mr. ANTHONY. Are those ships any account for bombardment?

Gen. MITCHELL. No, sir; they will not lift the necessary weight. It is not an efficient ship at all.

Mr. ANTHONY. You would like to junk every one of those?

Gen. MITCHELL. I would like to form a standpoint of national defense, safety, and economy. We have nothing else, so we must use them. We have to rebuild every one now, at considerable expense.

Mr. ANTHONY. But you consider them out of date?

Gen. MITCHELL. Of course it all depends upon whom you are fighting. This pursuit ship [indicating photograph] is a 170-mile class ship. We are going to use up the Liberty engine on our bombers, and, by using doped fuel, we will get a little more horsepower, and make everything go as far as we can.

Mr. ANTHONY. You will utilize the Liberty engines you now have on hand on the attack and bombardment planes you propose to manufacture?

Gen. MITCHELL. Yes, sir. We need more horsepower for the armored attack ships, however.

Mr. ANTHONY. But you have to use a new type of engine for the pursuit plane?

Gen. MITCHELL. We have the Hispano-Suiza engine that we are going to use for those planes. We have to buy some of those. We are just getting to the point where we have American types. The Packard 300 horsepower engine is promising.

Mr. ANTHONY. You are going to use the same engine in the Thomas Morse machine that you proposed to use in the Spad machine during the war?

Gen. MITCHELL. The last Spad was supposed to have the 300 horsepower Hispano-Suiza engine. There was the 220 horsepower Hispano-Suiza engine proposed in the first place because the 300 horsepower engine had not come out.

REVISED ESTIMATES.

Mr. ANTHONY. We gave you \$33,000,000 last year for Army aviation. In case Congress does not see fit to go beyond that figure this year, how ought this production program be arranged to fit in?

Gen. MITCHELL. We have prepared a very careful estimate on that subject which I can put into the record.

Mr. ANTHONY. I think that was requested of Gen. Menoher, when he was before the committee, but that has not been furnished to the committee, as yet.

Gen. MITCHELL. I think that it is ready now.

Mr. ANTHONY. That will be put in the record in conjunction with your hearing?

Gen. MITCHELL. Yes, sir. The estimate referred to is as follows:

Instruction and operating of Air Service troops, including equipment required for their maintenance	\$4,432,704
Improvement of stations, shops, and repairs	2,376,542
Miscellaneous supplies, printing and stationery, tuition at schools, mileage on aviation duty	510,000
Fuel and lubricants	3,507,029
Hellum development	875,270
New aircraft and engines	9,045,025
Engineering, development of aircraft (McCook Field)	5,750,000
Civilian employees required for maintenance of mechanical instruction as aeronautical mechanics in the office of the Chief of Air Service as consulting engineers, and the necessary traveling expenses	6,523,205
Total	33,000,000

The detail for each one of these items has been submitted to the committee with the exception of the \$9,045,025 for the construction of new aircraft, which would be a proportionate scaling down of the \$17,000,000 asked for as being the proper amount of money required for the equipment of existing units, and, on this basis, about one-half of our existing heavier-than-air units can be equipped with up-to-date airplanes.

I wish here to be distinctly understood that the Air Service now authorized for the Army is entirely inadequate for functioning with the existing authorized Army, or in the event of any serious field operation.

I wish also to invite particular attention to the difference in pay of enlisted men on aviation duty.

Comparison of pay of the Army, Navy, and Marine Corps (enlisted personnel, including additional pay for flying duty).

Army. ¹		Navy. ²		Marine Corps. ³		
Designation.	Monthly salary.	Designation.	Monthly salary.	Designation.	Monthly salary.	
					Specified.	Actual pay.
Master sergeant.....	\$88.80	Chief petty officer..	\$126.00	Quartermaster sergeant.	⁴ \$74.00	\$89.90
Aviation duty.....	133.20	Aviation duty.....	189.00	First sergeant.....	⁴ 53.00	68.90
Technical sergeant or first sergeant.	63.60	Petty officer, first class.	84.00	Gunnery sergeant, Aviation.	80.00	.....
Aviation duty.....	95.40	Aviation duty.....	126.00	Gunnery sergeant..	⁴ 53.00	68.90
Staff sergeant.....	54.00	Petty officer, second class.	72.00	Sergeant, aviation (mechanic).	70.00	.....
Aviation duty.....	81.00	Aviation duty.....	108.00	Sergeant.....	45.00	.....
Sergeant.....	54.00	Petty officer, third class.	60.00	Corporal, aviation (mechanic).	60.00	.....
Aviation duty.....	81.00	Aviation duty.....	90.00	Corporal.....	37.00	.....
Corporal.....	44.40	Nonrated first class	54.00	Private, first class, Aviation (mechanic).	50.00	.....
Aviation duty.....	66.60	Aviation duty.....	81.00	Private, first class..	35.00	.....
Private, first class...	35.00	Nonrated, second class.	48.00	Private.....	30.00	.....
Aviation duty.....	52.50	Aviation duty.....	72.00			
Private.....	30.00	Nonrated, third class.	33.00			
Aviation duty.....	45.00	Aviation duty.....	49.50			

¹ While under orders to participate regularly and frequently in aerial flights 50 per cent increase in base pay is allowed.

² Chief petty officers and mechanics receive 50 per cent additional while actually performing flying duty.

³ Additional pay for Aviation duty included in base pay—as shown in table.

⁴ Including 1 ration.

This table shows that the highest paid enlisted man on flying duty in the Army receives \$133.20, on aviation duty in the Navy \$189—about \$56 more per month—and the Marine Corps enlisted aviator is even lower than the Army. This is not right in any way, and the pay should be equalized for the enlisted men. Master sergeants in the Army Air Service and quartermaster sergeants on aviation duty in the marines should have the same pay as chief petty officers in the Navy; technical sergeants in the Air Service and first sergeants in the Marine Air Service should have the same pay as petty officers first class in the Navy; and so on, all the way down the list. Safety of the pilot and the airplane which he flies is very largely due to the excellence and mechanical ability of the enlisted men. To get good men in time of peace requires competition with existing trades in civil life. In the Air Service, we have to have some seventy-five trades. There is no surer way to ruin an Air Service than by making it impossible for it to maintain and keep efficient enlisted men. This matter of pay should be regulated as soon as practicable.

Another thing to which I desire to call particular attention is the entire disproportion of field officers in the Air Service as compared to other branches. The officers who entered the Air Service and are making a career of it are those who have the initiative to go into

the most dangerous branch of the service, whose losses in time of peace are commensurate with those in other branches in time of war, who are building up this service in spite of the difficulties to be overcome, and who, for that reason, have the maximum amount of initiative, and are not given the rank in proportion to the commands which they now have. This is due to the fact that the present system of promotion is based on length of service, and not on individual ability. In a new and growing service such as the Air Service, officers should be put into positions in accordance with their ability. If this is not done, progress will be arrested accordingly.

It will take years under the present system before the Air Service can possibly have anything like the proportion that the other branches have. By that time, on account of being continually held down to ranks entirely below what Air Service officers should have in comparison with the command which they exercise, their initiative will very largely have been stifled. While rank does not mean everything, it is based primarily on the command that is exercised, and the weight which one service has with respect to another has largely to do with the rank of the officers in it, which is also the case with the present system of detail of officers for the General Staff.

I therefore recommend very strongly that a provision be inserted in the law which will give to Air Service officers temporary rank in accordance with the commands which they have, which are provided for in the tables of organization, and which are necessary for an efficient performance of their duty—that is, that flight commanders be captains, that squadron commanders be majors, that group commanders be lieutenant colonels, that wing commanders be colonels, and that brigade commanders be brigadier generals, with a corresponding assignment of rank in the lighter-than-air units. The Air Service, more than anything else, depends for its efficiency on a well-instructed personnel, bold in the carrying out of its air duties, and with initiative sufficient to develop this newest of arms.

EXPENDITURES OF CURRENT APPROPRIATION.

Mr. SLEMP. What amount of money did you have this year out of the \$33,000,000 for your work?

Gen. MITCHELL. For the construction of airplanes?

Mr. SLEMP. Yes.

Gen. MITCHELL. About \$6,500,000 for what we call production—that is, the orders for ships that we would supply to the units, and about \$5,000,000 for experimentation. We shall use all we can save from the rest of the appropriations so as to buy a few modern typeships and at least let our personnel see what they look like.

FOR EXPERIMENTS AGAINST BATTLESHIPS.

Mr. ANTHONY. If this committee should think it wise to make provision for carrying out the experiments you spoke of against battleships, would it be necessary to provide for that in the appropriation bill by setting aside a sum of money for that purpose?

Gen. MITCHELL. I do not think so. I do not think any money will be required.

Mr. ANTHONY. You think if this committee would express its desire to the Chief of the Air Service——

Gen. MITCHELL (interposing). The Chief of the Air Service is for it.

Mr. ANTHONY. What stands in the way of it?

Gen. MITCHELL. The Navy has to turn the ship over to us.

Mr. CRAMTON. They have offered to do that?

Gen. MITCHELL. They have never offered it to the Air Service.

Mr. CRAMTON. They have offered a ship for the general purposes of the War Department?

Gen. MITCHELL. It is being used for the Coast Artillery.

Mr. ANTHONY. You think it would require a legislative provision to get that?

Gen. MITCHELL. We have been unable to get any ships as targets so far.

Mr. CRAMTON. You say you are not going to do away with the need of the Army. Is it not true that the development of the air forces will have some effect upon the amount of artillery, perhaps, and also on the number of the different units that will be required?

Gen. MITCHELL. I doubt it very much, except, possibly, some heavy ordnance for coast defense. You have to provide the infantry with all the auxiliaries necessary to make the infantry function. You can not cut down on that now.

Mr. CRAMTON. I am speaking of what will happen, eventually, in the future.

Gen. MITCHELL. I doubt it very much, because you must provide the fighting man on the ground with his inseparable weapons, one of which is artillery.

Mr. CRAMTON. You get control of the air and then you are able to bomb the enemy forces. Does not that to some extent make the air force a substitute for an artillery attack?

Gen. MITCHELL. No, sir; the ultimate answer is getting man to man and letting them fight it out. I think with long range artillery, it will have some effect. I think you have to balance those things according to the amount of money you have to spend. An air force attack, such as you speak of, is as an aid to an army and does away with no specific arm, just as a navy may assist in a landing.

Mr. CRAMTON. In one of the British attacks I think they preceded the infantry attack with a very large use of air bombs.

Gen. MITCHELL. We always did that in the back areas in our attacks. The air force will not supplant any artillery with the troops. I believe it will affect the system of coast defense a great deal. We will soon have ships that will cross the ocean.

Mr. ANTHONY. The fact that it can cross the ocean will not help it, will it? It will be helpless when it gets over there?

Gen. MITCHELL. I mention that because it may be possible to use that ship in connection with some commercial proposition, and then convert it rapidly to military use with its great weight-carrying ability.

PROGRAM.

Mr. SLEMP. Does the \$17,000,000 you are asking for provide for the securing of a complete unit, or will you ask for another \$17,000,000 next year, and then another \$17,000,000 the following year?

Gen. MITCHELL. What we want to lead up to is this: Aviation must be ready when the war starts, because that is when aviation will be called on. That is when it will have its greatest effect, and we want to keep the organizations we have in service equipped with modern equipment and have enough in storage to last for two or three months of an ordinary war. Next year we will probably ask for more than that because we are going to develop the air reserve forces. Airplanes do not last forever and develop rapidly. Relative strength in the air depends on what the other fellow has.

Mr. SLEMP. Then what sort of an ultimate program do you have in mind?

Gen. MITCHELL. My idea is that we will have an ultimate program of about \$45,000,000 a year for construction.

Mr. SLEMP. When you are spending that \$45,000,000 you will have reached the point where you have production up to the point where it becomes a maintenance proposition?

Gen. MITCHELL. That is the point, and much cheaper than any other arm of the service with more protection.

Mr. SLEMP. But it is necessary to spend \$45,000,000 a year in production before you have enough machines so that you are up to the point where it becomes a maintenance proposition?

Gen. MITCHELL. Yes, sir; at present, in accordance with strength of foreign air powers.

Mr. SLEMP. When you ask for \$17,000,000 you are working on a three-year program, and you expect to expend \$17,000,000 during the coming year?

Gen. MITCHELL. We could expend it this year. It is to equip the units now in the service with all-American outfits. Our pursuit aviation now has obsolete British, French, and German ships. We have no actual first-class bombardment and no attack units. If you do not allow us to equip our aviation with American material, you are merely putting our first line of our national defense—that is, the air force—in the hands of foreign nations that some day may be our enemies.

MONDAY, JANUARY 3, 1921.

PAY OF THE ARMY.

STATEMENT OF BRIG. GEN. H. M. LORD, CHIEF OF FINANCE.

Gen. LORD. Mr. Chairman, under date of December 16 the chairman of this subcommittee asked the Secretary of War to have estimates prepared on the basis of an Army not exceeding 175,000 men.

Mr. ANTHONY. You have such estimates there?

Gen. LORD. The Chief of Finance was directed by the Secretary of War to make the necessary calculations for such an Army. It is very evident that the Chief of Finance could not make a scientific estimate under those conditions, but I believe the supply bureau have been advised of the committee's wishes in the matter and will be prepared to present modified estimates, as desired.

Mr. ANTHONY. In case the committee should desire to go to a strength of 150,000 men could we simply make by mathematical calculation proportionate reductions of the figures given us?

Gen. LORD. That can not be done scientifically because there are certain constants not dependent upon the size of the Army.

Mr. ANTHONY. But so far as the pay of the Army is concerned that can be done, can it not?

Gen. LORD. That can not be done as regards pay of the Army. If the committee desires an itemized estimate for any particular strength of enlisted personnel, I will submit the figures to you.

Mr. ANTHONY. I think you will be asked for an estimate on the basis of an Army of 150,000 men.

Gen. LORD. Early in these hearings there was submitted to the committee a table prepared on a distribution of funds submitted by the bureau chiefs on request from the office of the Chief of Finance. The principal purposes of that analysis were to show how much of the estimates of the various bureaus and activities of the War Department were constants—that is, not dependent upon the size of the Army—and how much were variable—that is, dependent entirely upon the strength of the Army. After receiving these instructions from the Secretary of War I have extended that table to cover a reduction to an Army of 175,000 men, reaching the conclusion in this way, that 175,000 is practically five-eighths of 280,000, so that there would be a reduction of three-eighths on each of the items concerned.

That holds true with the exception of the estimate for Pay of the Army. In submitting the estimate for Pay of the Army for an Army of 280,000 men, which appears in the Book of Estimates, the estimate for Pay of the Army is really for an Army of 252,000 men, because a 10 per cent reduction was made in each item in view of the fact that experience has shown that where you have a maximum limit set there is always a failure to come up to the given maximum, and prior experience has shown that we can safely, under those conditions, make an estimate of 90 per cent to cover all needs. If the committee now decide that the average enlisted strength for the year 1922 shall be 175,000 and not in excess thereof, that 10 per cent would not be applicable, because whereas you could not exceed 280,000 to get your average of 280,000; in order to get an average of 175,000 it would be possible to exceed the maximum, and probably that would be the result. The table as presented shows that on the basis of such a reduction of the enlisted strength from 280,000 to 175,000 there would be in the variables alone a reduction of \$111,342,863. This does not include the National Guard.

I wish to call attention, as I did in submitting the original table, that it seems to me it will be difficult for some of the bureaus to justify the amounts included as constants and as not affected by the size of the Army.

Mr. ANTHONY. Take the appropriation for "Subsistence of the Army." Do you regard that as a constant?

Gen. LORD. In the table the Quartermaster General has figured \$4,687,000 of his estimate as constants, and \$59,000,000 as the amount dependent upon the enlisted strength.

This table may be informative and helpful to the committee as a basis of study. The distribution into constants and variables was made by the bureau chiefs themselves.

Mr. ANTHONY. In this specific appropriation for subsistence of the Army, why is any of it constant? Do you keep any of that subsistence in reserve?

Gen. LORD. There is a certain amount of overhead in subsistence that is always constant, such as maintenance, care, and preparation, subsistence for cadets, scouts, and nurses.

Mr. ANTHONY. The amount we appropriate for subsistence is supposed to pay for the actual purchase of food?

Gen. LORD. There is a certain amount for care and maintenance.

Mr. Sisson. It would be negligible as compared to the total amount carried in the appropriation?

Gen. LORD. The people who are most familiar with it have made the distribution into constants and variables, and it will be for them to justify to the committee whether the amount so designated is necessarily a constant.

Mr. SIEMP. You do not defend any of the items—you just submit them?

Gen. LORD. A certain amount in the variable column we will accept as being dependent upon the enlisted strength of the Army. Whether or not the bureau chiefs will be able to justify what they claim to be constants remains to be demonstrated.

Mr. CRAMTON. Such an item would be Engineering Operations in the Field, which is all held to be constant.

Gen. LORD. The Air Service is a good illustration. You will find that the Air Service carries all of its estimate as constant.

Mr. ANTHONY. In other words, if we reduce the size of the Army, they propose to maintain the Air Service at its maximum?

Gen. LORD. Yes; at its maximum.

TUESDAY, JANUARY 4, 1921.

STATEMENT OF MAJ. JAMES MacKAY.

Mr. ANTHONY. Now, Gen. Lord, we will start with you. This comes most immediately under your supervision.

Gen. LORD. Maj. MacKay, of the Finance Department, has all of the details in connection with the estimate for pay of the Army for 1922, and will be prepared to answer any questions.

PAY OF OFFICERS OF THE LINE AND STAFF.

Mr. ANTHONY. For pay of officers of the line and staff of the Army you are asking for \$48,780,951. This is based, is it not, upon your ability to secure the full number of officers authorized by law during the next fiscal year.

Gen. LORD. Yes, sir; subject, of course, always to the 10 per cent. reduction. Even if we get up to the number there are always some going out and coming in, so that we figure there is always a lack of 10 per cent; so that the estimate is actually for 90 per cent of the authorized strength.

Mr. ANTHONY. This figure of \$48,000,000 allows for that 10 per cent leeway?

Gen. LORD. Yes, sir.

NUMBER OF OFFICERS.

Mr. ANTHONY. How many officers are there now in the Army?

Maj. MACKAY. Under date of December 14 the commissioned strength was 13,985.

Mr. ANTHONY. That includes the names of emergency officers that are now pending before the Senate for confirmation—all the estimates in the Regular service?

Maj. MACKAY. Yes, sir.

Mr. ANTHONY. That would leave approximately 3,000 new officers to be appointed?

Maj. MACKAY. If the maximum number is appointed.

Mr. ANTHONY. So that if the maximum number of officers is not appointed, you could get along with less money?

Gen. LORD. Yes, sir.

Mr. ANTHONY. Most of those officers will be in the grades of first and second lieutenants, will they not, whose places are not filled?

Gen. LORD. The new officers who come in will be in the lower grades.

AVERAGE PAY OF OFFICERS.

Mr. ANTHONY. Have you any figures which will show the average pay of an officer of the Army, the average of all grades?

Maj. MACKAY. The average of all grades, including the temporary increase, is \$3,055.06.

Mr. ANTHONY. How long does the temporary increase run?

Maj. MACKAY. It runs until June 30, 1922.

Mr. SLEMP. In 1916 how many did you have in the Army—what was the strength of the Army then?

Maj. MACKAY. I have not those figures.

Mr. SLEMP. How many officers did you have in 1916? Please put into the record the size of the Army in 1916 and the number of officers constituting the Army then.

Maj. MACKAY. I will do that.

Mr. SLEMP. I just want that for comparison with your situation now.

STRENGTH OF THE ARMY IN 1916.

The actual strength of the entire Military Establishment on June 30, 1916, by branches of services, is shown by the following table:

Branches of service.	Off- cers.	En- listed men.	Total.	Branches of service.	Off- cers.	En- listed men.	Total.
General officers.....	24	.....	24	Infantry.....	1, 607	34, 313	35, 920
Staff Corps and depart- ments.....	1, 206	12, 374	13, 580	Miscellaneous.....	.....	9, 440	9, 440
Engineers.....	228	1, 826	2, 054	Total, Regular Army	4, 843	97, 013	101, 856
Cavalry.....	782	15, 160	15, 942	Philippine Scouts.....	182	5, 603	5, 785
Field Artillery.....	257	5, 627	5, 884	Aggregate.....	5, 025	102, 616	107, 641
Coast Artillery Corps.....	739	18, 273	19, 012				

¹ Includes 154 first lieutenants of the Medical Reserve Corps.

² Includes 4,670 enlisted men of the Medical Department.

Mr. ANTHONY. Major, the number of officers that we will have in the service in the next fiscal year is fixed by law?

Maj. MACKAY. Yes, sir.

Mr. ANTHONY. And no matter what size of an army Congress fixes by the appropriations, the number of officers will remain constant?

Maj. MACKAY. Unless the law is changed.

Mr. ANTHONY. Unless the organization law is changed.

Mr. SLEMP. Is that really the way of it?

Mr. ANTHONY. In my opinion it is correct unless it should be the policy of the next administration not to fill all the vacancies that exist.

Mr. SLEMP. That is the point I was getting at right there. Suppose that this committee does not appropriate? Suppose this committee say, "We will appropriate for a maximum of 12,000 officers?"

Maj. MACKAY. A deficiency would be incurred.

Mr. SLEMP. You would have to rely on the executive departments in sending in the names?

Maj. MACKAY. Well, of course, we have considerably more than that number now, and if the appropriation was made for only 12,000—

Mr. SLEMP. I just used 12,000 as an illustration.

Gen. LORD. You must bear in mind always that this estimate of \$48,000,000 is only 90 per cent of the total number authorized. We have deducted 10 per cent, because we do not think we will have the full authorized strength through the entire year. This estimate is not for the 17,717 officers, but is for 15,945, just 90 per cent of the total, because there are always people going out, and there is always a lack, a failure to get the total. That condition we always take into account.

Mr. SLEMP. Do I understand your position to be that if we have 175,000 enlisted men in the Army, or 150,000 enlisted men in the Army, or 125,000 enlisted men in the Army, under either one of those circumstances you will have 15,000 and so many officers?

Maj. MACKAY. Yes, sir; it will not affect the number of officers in the service.

Mr. SLEMP. The phraseology of the law is such that that is the fact?

Maj. MACKAY. Yes, sir.

Mr. ANTHONY. Last year, General, we appropriated \$40,000,000 for pay of officers of the line and staff. Is that correct?

Maj. MACKAY. Yes; that is right.

Mr. ANTHONY. So that this supposed increase of \$8,780,000 is almost entirely to increase in the number of officers and to increase in the pay?

Maj. MACKAY. Yes, sir.

Mr. SLEMP. For the remaining vacancies in the Army, from thirteen thousand and something up to seventeen thousand and something, is it your thought that the average salary or wage of pay would be \$3,000 each?

Maj. MACKAY. \$3,055 each.

Mr. ANTHONY. Is that the actual money salary?

Maj. MACKAY. The actual average pay of an officer, including the temporary increase, is \$3,055.06.

Mr. SLEMP. What are these vacancies?

Maj. MACKAY. They are in the first and second lieutenants.

Mr. SLEMP. What would that average be?

Gen. LORD. It would be less than the average pay quoted.

Maj. MACKAY. The pay of a second lieutenant is \$2,120.

Mr. ANTHONY. What is the pay of a first lieutenant?

Maj. MACKAY. \$2,600.

Mr. ANTHONY. Take the average of those two.

Mr. SLEMP. About \$2,400.

Mr. ANTHONY. Will you put into the record the present pay table of the different grades of officers of the Army?

Maj. MACKAY. Yes, sir.

Mr. ANTHONY. And the pay of enlisted men—all the way through.

Gen. LORD. Here is a new pay table.

Mr. ANTHONY. I mean just pay for the grades. Are there any further questions on that item?

Annual pay of commissioned officers on active duty.

[Base pay, act May 11, 1908; temporary increase, act May 18, 1920.]

Grade.	Less than 5 years service.	Over 5 years service.	Over 10 years service.	Over 15 years service.	Over 20 years service.
General of the Armies of the United States.....	\$13,500	\$13,500	\$13,500	\$13,500	\$13,500
General.....	10,000	10,000	10,000	10,000	10,000
Lieutenant general.....	9,000	9,000	9,000	9,000	9,000
Major general.....	8,000	8,000	8,000	8,000	8,000
Brigadier general.....	6,000	6,000	6,000	6,000	6,000
Colonel.....	4,000	4,400	4,800	5,000	5,000
Act May 18, 1920.....	600	600	600	600	600
Total.....	4,600	5,000	5,400	5,600	5,600
Lieutenant colonel.....	3,500	3,850	4,200	4,500	4,500
Act May 18, 1920.....	600	600	600	600	600
Total.....	4,100	4,450	4,800	5,100	5,100
Major.....	3,000	3,300	3,600	3,900	4,000
Act May 18, 1920.....	840	840	840	840	840
Total.....	3,840	4,140	4,440	4,740	4,840
Captain.....	2,400	2,640	2,880	3,120	3,360
Act May 18, 1920.....	720	720	720	720	720
Total.....	3,120	3,360	3,600	3,840	4,080
First lieutenant.....	2,000	2,200	2,400	2,600	2,800
Act May 18, 1920.....	600	600	600	600	600
Total.....	2,600	2,800	3,000	3,200	3,400
Second lieutenant.....	1,700	1,870	2,040	2,210	2,380
Act May 18, 1920.....	420	420	420	420	420
Total.....	2,120	2,290	2,460	2,630	2,800

Monthly rates of pay of enlisted men under act of June 4, 1920.

Grade.	Basepay (act June 4, 1920).	Pay, including temporary increase authorized by the act of May 18, 1920, and longevity increase. These rates are effective from July 1, 1920, to June 30, 1922.				
		Less than 5 years.	Over 5 years.	Over 10 years.	Over 15 years.	Over 20 years.
First grade—Master sergeant.....	\$74.00	\$88.80	\$96.20	\$103.60	\$111.00	\$118.40
Second grade { First sergeant.....	53.00	63.60	68.90	74.20	79.50	84.80
{ Technical sergeant.....						
Third grade—Staff sergeant.....	45.00	54.00	58.50	63.00	67.50	72.00
Fourth grade—Sergeant.....	45.00	54.00	58.50	63.00	67.50	72.00
Fifth grade—Corporal.....	37.00	44.40	48.10	51.80	55.50	59.20
Sixth grade—Privates, first class.....	35.00	35.00	38.50	42.00	45.50	49.00
With rating as specialist—						
First class.....		60.00	63.50	67.00	70.50	74.00
Second class.....		55.00	58.50	62.00	65.50	69.00
Third class.....		50.00	53.50	57.00	60.50	64.00
Fourth class.....		47.00	50.50	54.00	57.50	61.00
Fifth class.....		43.00	46.50	50.00	53.50	57.00
Sixth class.....		38.00	41.50	45.00	48.50	52.00
Seventh grade—Private.....	30.00	30.00	33.00	36.00	39.00	42.00
With rating as specialist—						
First class.....		55.00	58.00	61.00	64.00	67.00
Second class.....		50.00	53.00	56.00	59.00	62.00
Third class.....		45.00	48.00	51.00	54.00	57.00
Fourth class.....		42.00	45.00	48.00	51.00	54.00
Fifth class.....		38.00	41.00	44.00	47.00	50.00
Sixth class.....		33.00	36.00	39.00	42.00	45.00

Additional pay per month.

Casemate electrician.....	\$9	First-class gunner.....	\$3
Observer, first class.....	9	First-class military telegrapher.....	3
Plotter.....	9	Marksman.....	3
Coxswain.....	9	Second-class gunner.....	3
Chief planter.....	7	Military telegrapher.....	3
Chief loader.....	7	Medal of honor.....	3
Observer, second class.....	7	Distinguished service cross.....	3
Gun commander.....	7	Distinguished service medal.....	3
Gun pointer.....	7	For each bar in lieu of medal of	
Expert first-class gunner, F. A.	5	honor, distinguished service	
Expert rifleman.....	5	cross, or distinguished service	
Expert military telegrapher.....	5	medal.....	3
Sharpshooter.....	3		

NOTES.

1. That nothing in this section shall operate to reduce the pay which enlisted man is now receiving during his current enlistment and while he is in his present grade, nor to change the present rate of pay of any enlisted man now on the retired list. (Sec. 4b, act approved June 4, 1920.)
2. The temporary allowance of rations authorized by section 5 and the transportation privileges authorized by section 12 of the said act (approved May 18, 1920) shall apply only to enlisted men of the first three grades. (Ibid.)
3. Under such regulations as the Secretary of War may prescribe, enlisted men of the sixth and seventh grades may be rated as specialists and receive extra pay therefor per month as follows: First class, \$25; second class, \$22; third class, \$15; fourth class, \$12; fifth class, \$8; sixth class, \$3. (Ibid.) Under decision of the Comptroller of the Treasury dated November 15, 1920, it has been held that the extra pay allowed for specialists' ratings is not "pay" within the meaning of the saving clause in section 4b of the act of June 4, 1920, but is an allowance which may be added to or taken away from either the existing or the new rates of pay.
4. Officers and enlisted men of the Army shall receive an increase of 5.00 per cent of their pay while on duty requiring them to participate regularly and frequently in aerial flights. (Ibid.)

PAY OF NATIONAL GUARD OFFICERS.

Mr. ANTHONY. Take this item for pay of officers of the National Guard, \$100. That is simply maintained there to keep it alive.

Maj. MacKAY. To keep it alive, so that the appropriation will be available if the National Guard is taken into the Federal service.

Mr. ANTHONY. From what fund do you pay officers of the National Guard who are detailed on active duty?

Maj. MacKAY. That is from this appropriation.

Mr. ANTHONY. From the first appropriation, just the same as regular officers of the Regular Army?

Maj. MacKAY. Yes, sir.

PAY OF OFFICERS OF THE RESERVE CORPS.

Mr. ANTHONY. For pay of officers of the Reserve Corps you are asking for \$3,000,000 this year in place of \$2,750,000 that you had last year. How much money did you spend last year for that purpose?

Maj. MacKAY. Very little.

Mr. ANTHONY. So that most of this last year's appropriation was unexpended?

Maj. MacKAY. Was unexpended.

Mr. ANTHONY. And you used it for some other purpose?

Maj. MacKAY. For other pay purposes.

Mr. ANTHONY. Pay of other branches?

Maj. MacKAY. Yes, sir.

NUMBER OF RESERVE OFFICERS ON ACTIVE DUTY.

Mr. ANTHONY. Well, how many officers of the Reserve Corps does that contemplate placing on active duty under this item of \$3,000,000?

Maj. MacKAY. Twenty-seven thousand to be employed on active duty for 15 days.

Mr. ANTHONY. You have a number of officers who are on active duty now. How are they paid?

Maj. MacKAY. They are paid from the first item. The basis upon which the estimate is made is that the number and grades of reserve officers to be employed on active duty throughout the year will be equal to the number of vacancies in the Regular Army.

Mr. ANTHONY. Is it proposed to keep any reserve officers on active duty continuously during the next fiscal year?

Maj. MacKAY. The instructions with regard to the preparation of the estimates provided that the vacancies between the authorized strength of the Regular Army and the actual strength of the Regular Army should be filled up by reserve officers.

Mr. ANTHONY. Say that the Congress should decide that it does not want to authorize any reserve officers to be placed on continuous active duty during the next fiscal year, you could still use that even though we failed to make the appropriation under this head, could you not? You say you pay them out of the appropriation for the line and staff of the Army under that power.

Gen. LORD. Yes; that could be done.

Mr. ANTHONY. That is one of the reasons I do not like that very general authority, that is given there, that permits you to pay one item out of the unexpended balance of the other.

Gen. LORD. This has been so from time immemorial. This is merely a method of showing you how we arrive at various conclusions. It would be very awkward if we could not make such transfers.

If each of the items under "Pay of the Army" were treated as a separate appropriation and the authority to use them interchangeably were taken away an impossible situation would be created. Take the case of an enlisted man serving overseas, who is entitled to service pay. We estimate in this bill for the amount of money to pay the base pay of enlisted men; in another item appears the estimate for longevity pay for enlisted men, while yet another item carries the foreign-service pay for enlisted men. These estimates can not be otherwise than approximations, so that if the interchangeability of the items be eliminated we might face the necessity before the close of the fiscal year of only paying the enlisted men a portion of their pay.

If we underestimated the base pay, we could then pay the oversea man his longevity and foreign-service pay, or vice versa, if the shortage occurred in some other of the three factors entering into his pay.

The pay and pecuniary allowances of the Army are fixed by statute and their itemization in the bill is for the purpose of showing the estimated amounts which will be required under each item. The amounts payable to the individual officer or man being regulated by statute, it would require a vast amount of bookkeeping, without any resultant benefit, if each of these items were made a separate appropriation.

Mr. ANTHONY. What I point out is, General, say that we decline to make any appropriation for pay of officers in the Reserve Corps on continuous active duty, you could retain them on active duty and still pay them from other items.

Gen. LORD. But the law provides that they can not be detailed for more than two weeks in a year without their consent.

Mr. ANTHONY. But there would be some that would like to be detailed.

Gen. LORD. It would seem that if any of them have occupations of any importance they would not care to be detailed for a year.

Mr. ANTHONY. There are hundreds of them detailed now.

Gen. LORD. I do not know how many, but I think very few.

Mr. ANTHONY. I would be glad to have that put in the record, how many reserve officers there are on active duty.

On December 31, 1920, there were 118 officers of the Officers' Reserve Corps on active duty in the following grades: Colonels, 7; lieutenant colonels, 4; majors, 28; captains, 43; first lieutenants, 33; second lieutenants, 3.

PAY OF WARRANT OFFICERS.

Mr. ANTHONY. For "Pay of warrant officers" you ask for \$1,475,000. Last year you had \$1,785,000. Did you utilize all of that appropriation last year?

Maj. MACKAY. No, sir; the appointments to the grade of warrant officers have just been made.

Mr. ANTHONY. How much was expended last year? We had 100 warrant officers.

Gen. LORD. Only the mine-planter service.

Mr. ANTHONY. Have you appointed warrant officers in the Regular service yet?

Maj. MACKAY. Yes, sir. The number appointed up to January 3 was 948, and the remaining vacancies are reserved for band leaders, and their appointments will be made this month.

Mr. ANTHONY. Have all the other vacancies in the grade of warrant officers been filled, then?

Maj. MACKAY. The vacancies will be filled.

Mr. ANTHONY. Were there not a considerable number of noncommissioned officers who were eligible to these warrant grades who refused the grade?

Maj. MACKAY. I understand so.

Mr. ANTHONY. Because, I believe, of the failure of Congress to make the pay high enough?

Maj. MACKAY. I understand that there were quite a number.

Mr. ANTHONY. Is it a fact that there are noncommissioned grades in the service which pay more than the warrant officers receive?

Maj. MACKAY. When all their allowances are added to their pay—that is, the money value of the allowances is added to the pay—they will in some cases be in receipt of more money.

Mr. ANTHONY. I wish you would put into the record, Major, because there probably will be some inquiry about that, what the pay of warrant officers is at the present time and what noncommissioned officers there are whose pay is at present more than that of warrant officers.

Maj. MACKAY. All right, I will have that prepared and insert it in the record.

PAY OF WARRANT OFFICERS AND MASTER SERGEANTS.

Comparative monthly pay and allowances of warrant officers and enlisted men of the first grade (master sergeants).

CASE A.—WHEN ON DUTY WITHOUT TROOPS AND ON A COMMUTATION BASIS.

	Warrant officers.	Master sergeant.
Base pay.....	\$110.00	\$74.00
Increase in pay under act May 18, 1920.....		14.80
Maximum service pay (20 years).....	44.00	29.60
Commutation of quarters.....	24.00	15.00
Commutation of heat and light.....	12.78	8.78
Foreign service increase (maximum).....	15.40	20.72
Clothing (estimated).....		12.00
Laundry (estimated).....		3.00
Rations (additional under act May 18, 1920).....		15.90
Commutation of rations.....		47.70
Total.....	206.18	241.50

CASE B.—WITH DEPENDENTS, ON DUTY IN THE FIELD.

	Warrant officers.	Master sergeant.
Base pay.....	\$110.00	\$74.00
Increase in pay under act May 18, 1920.....		14.80
Maximum service pay (20 years).....	44.00	29.60
Commutation of quarters.....	24.00	15.00
Commutation of heat and light.....	12.78	8.78
Foreign service increase (maximum).....	15.40	20.72
Clothing (estimated).....		12.00
Additional ration under act May 18, 1920.....		15.90
Value of rations (estimated).....		30.00
Total.....	206.18	220.80

Comparative monthly pay and allowances of warrant officers and enlisted men of the first grade (master sergeants)—Continued.

CASE C.—WITHOUT DEPENDENTS, ON DUTY IN THE FIELD, OR WITH DEPENDENTS, WHEN ON DUTY WHERE PUBLIC QUARTERS ARE FURNISHED.

	Warrant officers.	Master sergeant.
Base pay.....	\$110.00	\$74.00
Increase in pay under act of May 18, 1920.....		14.40
Maximum service pay (20 years).....	44.00	21.60
Foreign service increase (maximum).....	15.40	20.72
Additional ration under act May 18, 1920.....		15.90
Value of rations (estimated).....		30.00
Clothing (estimated).....		12.00
Total.....	169.40	197.02

CASE D.—RETIRED.

Three-fourths base pay.....	\$82.50	\$55.50
Three-fourths maximum service pay (20 years).....	33.00	22.20
Commutation clothing, rations, quarters, fuel, and light.....		15.75
Total.....	115.50	93.45

NOTE.—In addition to the pay and allowances shown above, all dependents of enlisted men receive family allowances under the war-risk insurance act, whereas dependents of warrant officers do not receive these allowances.

NUMBER OF WARRANT OFFICERS AUTHORIZED BY LAW.

Mr. ANTHONY. Of course, the inequality in pay could only be corrected by legislation. How many warrant officers did we authorize by law?

Maj. MacKAY. 1,120, in addition to the mine-planter service. One master, one first mate, one second mate, one chief engineer, one assistant engineer, is authorized for each mine planter in the service.

Mr. ANTHONY. What is the total number appointed to date?

Maj. MacKAY. There are 19 mine planters in the service and they have 19 crews.

Mr. ANTHONY. What is the total number of warrant officers that have been appointed up to date?

Maj. MacKAY. 948 other warrant officers have been appointed, and the remaining vacancies are reserved for band leaders.

Mr. ANTHONY. What was the previous status of most of these who have been appointed warrant officers?

Maj. MacKAY. They were enlisted men who held emergency commissions during the war.

Mr. ANTHONY. Were they not mostly old regular soldiers, soldiers or noncommissioned officers?

Gen. Lord. It is understood that many of them were.

Mr. ANTHONY. How many field clerks were there that were given this grade of warrant officer?

Maj. MacKAY. Very few; probably one or two.

Mr. ANTHONY. Only one or two?

Maj. MacKAY. Very few. It is rather difficult to state just how many on account of some of the men being eligible for appointment both as field clerks and as enlisted men.

Gen. LORD. Those who came under my notice, whom I knew, preferred to remain field clerks, thinking that preferable to an appointment as warrant officer because of the resulting decrease in pay.

AIR SERVICE PAY.

INCREASE IN OFFICERS' PAY.

Mr. ANTHONY. For aviation increase you are asking for \$2,140,120 this year. Last year we appropriated \$1,445,376. What is the reason for that increase?

Maj. MACKAY. The present estimate was based on figures furnished by the chief of the Air Service as to the number and grades of flying officers that would be on a flying status in 1922.

Mr. ANTHONY. Is there an increase in the number of officers in the Air Service for the coming fiscal year over the number that were in during the present fiscal year?

Maj. MACKAY. As a matter of fact, Mr. Anthony, in many of these items, although the appropriation was for a certain amount, in most cases the appropriation was insufficient for the purpose. In fact, there is a deficiency bill in Congress now for \$40,000,000 for 1921.

Mr. ANTHONY. There was a deficiency in this item for pay of officers in the Air Service?

Maj. MACKAY. I can not say that there was in this particular item, but \$2,140,000 was based on 1,362 flying officers.

NUMBER OF FLYING OFFICERS.

Mr. ANTHONY. How many flying officers were there a year ago?

Maj. MACKAY. There were 964 flying officers on February 6, 1920.

Mr. ANTHONY. What is the rate of increase that is given to aviation officers?

Maj. MACKAY. Fifty per cent increase.

Mr. ANTHONY. For every man that qualifies as a flyer?

Maj. MACKAY. For every man while on duty requiring him to participate regularly and frequently in aerial flights, under the provisions of the reorganization act.

Mr. ANTHONY. Once having obtained the grade of flyer does he always retain that?

Maj. MACKAY. Only when he actually flies, when he is on duty, requiring regular and frequent flights.

Mr. ANTHONY. Have you any cases of officers having got this increase, and having had their status changed and having been dropped back to regular pay?

Maj. MACKAY. No doubt there have been such.

Mr. ANTHONY. There has not been any considerable number, has there?

Maj. MACKAY. That I do not know. But there are no doubt some of them in that status.

Mr. ANTHONY. Of course the increase was intended to recompense all officers who do regular and continuous flying. The idea in my mind is that there are undoubtedly a number of officers who attain the grade of flyer and then afterwards fly casually or simply for the purpose of qualifying for the extra pay.

Gen. LORD. It requires monthly service in each case.

Col. HICKMAN. Four hours in the air each month is required.

Mr. ANTHONY. Four hours each month?

Col. HICKMAN. Yes, sir; I think that is the requirement.

Mr. ANTHONY. That is the only increase that is allowed, that 50 per cent for flying?

Maj. MACKAY. Then there are a number who were rated as military aviators. Section 127-a of the reorganization act provides that 75 per cent increase shall continue to be paid to those.

Mr. ANTHONY. Those who had attained the grade of military aviators?

Maj. MACKAY. And who had distinguished themselves in battle, or some such condition as that.

Mr. SLEMP. Did you say that this increase applied to something like 1,100 officers?

Maj. MACKAY. 1,362.

Mr. ANTHONY. I thought we authorized 1,200-some officers for the air service.

Maj. MACKAY. There are 1,514 officers authorized for the Air Service, 90 per cent of which is 1,362. Of this number 1,226 will be flyers.

Mr. ANTHONY. I do not mean authorized, but only 1,200 in the Air Service.

Mr. SLEMP. This is equivalent to anyone being assigned to the Air Service getting 50 per cent increase?

Maj. MACKAY. Yes; if he regularly flies.

Mr. SLEMP. 90 per cent of them are included in the 50 per cent grade then?

Maj. MACKAY. Yes, sir.

Mr. SLEMP. Is it true that 90 per cent of the officers who go into the Air Service regularly fly?

Maj. MACKAY. Yes; the law requires that not more than 10 per cent of the officers of the Air Service who fail to qualify as a pilot or observer shall be permitted to remain in the Air Service.

Mr. ANTHONY. How are the grades of these flying officers that are entitled to the 50 per cent certified to you? How often is their status certified to?

Maj. MACKAY. Orders are published when they go on a flying status and when they return from a flying status.

Mr. ANTHONY. If a man goes on a flying status he stays on the pay roll as a flyer?

Maj. MACKAY. And he continues to draw that increase until he is relieved from that flying duty.

Mr. ANTHONY. And you say there have been very few men that have been relieved of the flying status once having attained it?

Maj. MACKAY. I said that there was no doubt but what some had been relieved from the flying status. The number I do not know.

Mr. CRAMTON. What is your standard for regular and frequent flying, as you call it?

Maj. MACKAY. That is laid down by regulations.

Mr. CRAMTON. What are the regulations?

Maj. MACKAY. I have not them at hand, but I will have them inserted.

Mr. ANTHONY. We should have gone into that with some of the aviators.

Mr. CRAMTON. The statement was made when we had them that a man could not keep in tune as a flyer with less than 10 flights a month. Now, do you suppose the regulations require as many as 10 flights a month?

Maj. MacKAY. I really could not say.

FLYING REGULATIONS.

Mr. CRAMTON. And each time the pay roll comes to you, it is not required that a certificate be made that certain officers that month have maintained their status as regular and frequent flyers? You just simply continue to pay them the 50 per cent increase?

Gen. LORD. We have the officer's certificate.

Mr. CRAMTON. You have a monthly certificate on his part?

Gen. LORD. Yes.

Mr. CRAMTON. I will be glad if you will put in the record the regulations as to the number of flights per month.

Mr. ANTHONY. One trouble with the situation is that undoubtedly some officers have qualified as flyers simply for the purpose of getting the 50 per cent extra pay, not with the idea of making their flying of any immediate benefit to the Government.

Mr. CRAMTON. Will that show also whether those flights are as pilots or as observers or something of that kind?

Gen. LORD. Here is the provision. I will put it in the record so you may have it for your information:

Officers and enlisted men in the Army shall receive an increase of 50 per cent of their pay while on duty requiring them to participate regularly and frequently in aerial flights, and no person shall receive additional pay for aviation duty except as prescribed in this section.

IV. *Flying status of officers and enlisted men, Air Service.*—The following instructions in connection with the flying status of both flying and nonflying Air Service officers and enlisted men and of officers of other services who have been detailed or attached to the Air Service for flight duty and otherwise are announced for the information and guidance of all concerned:

FLYING OFFICERS.

1. The act of Congress approved June 4, 1920, section 13a, provides that "Flying units shall in all cases be commanded by flying officers." Only those officers who shall have been announced in orders as having qualified as airplane pilot, airplane observer, airship pilot, or balloon observer shall be considered flying officers within the meaning of said act. All other officers shall be considered nonflying officers.

2. (a) All officers who on June 4, 1920, held the rating military aviator, junior military aviator, or reserve military aviator shall be considered as having qualified as airplane pilots and shall be announced in orders as having so qualified. All officers who on June 4, 1920, held the rating of military aeronaut, junior military aeronaut, or balloon observer shall be considered as having qualified as balloon observers and shall be announced in orders as having so qualified. All officers who on June 4, 1920, held the rating of observer or airship pilot shall be requalified in the above manner as airplane observer or airship pilot, as the case may be.

(b) Except as prescribed in subparagraph (a), no officer shall be rated except upon the completion of the course prescribed by the Chief of Air Service in accordance with paragraph 1584j, Army Regulations.

FLYING STATUS.

3. "Flying status" is defined as that status peculiar to officers who have been assigned to duty "requiring them to participate in regular and frequent aerial flights." Flights are construed to be flights in airplanes, free balloons, observation balloons, or airships.

4. (a) For flights in heavier-than-air craft an officer is construed to have actually participated in regular and frequent flights during any period in which he has participated in aerial flights at the rate of 10 flights per month. Officers holding a rating as pilot will be required to pilot an airplane during these specified flights, except when incapacitated for the performance of duty as pilot. For flights in lighter-than-air craft a minimum of four flights of a total duration of at least four hours in either a free balloon, an observation balloon, or an airship, or four flights of at least four hours in any combination of the three, is construed as the time necessary to the status of having participated in regular and frequent flights for each month.

b. In order that a proper limit may be established in connection with regularity of flights, it is construed that an officer may properly certify to his participation in regular and frequent aerial flights in any two succeeding months if he participates in twice the number of flights indicated in the foregoing subparagraph as the rate required per month. This construction will be made only where inclemency of weather or other unavoidable cause prevents an officer from making the required number of flights in one month. Whenever an officer is prevented from flying for a portion of a month, due to leave of absence or other cause which by regulation has been held to remove an officer from flying status, he is only entitled to flying pay for the balance of the month after the completion of a sufficient number of flights at the rate above indicated.

5. Officers signing the certificate required when claiming pay for flying duty will be held responsible that the participation in aerial flights certified to shall conform to the requirements of this order.

6. Commanding officers of Air Service stations and units will render a monthly report direct to the Chief of Air Service showing the names of nonflying officers placed on flying status, the time remaining on that status, the character of the duty which necessitated the assignment to the status, and the authority making such assignment.

7. Commanding officers will be held to a strict and continuing responsibility that in no case is the status of an officer on duty at their stations contrary to the spirit or letter of the foregoing instructions and that the flying efficiency of the personnel is maintained at a maximum. Monthly reports will be rendered to the Chief of Air Service, in which all personnel on "flying status" will be shown.

ENLISTED MEN.

8. Under the provisions of the act of Congress approved June 4, 1920, commanding officers of Air Service activities are authorized to assign such enlisted men to duty, requiring them to participate in regular and frequent aerial flights as may, in their discretion, be considered necessary in connection with the proper operation and repair of aircraft and aircraft accessories. The number of enlisted men assigned to such flying duty will be limited to that number consistent with the efficient conduct of the activity concerned. The Chief of Air Service will announce a limit as to the maximum number of men to be placed on flying status at the various Air Service activities and this limit will not be exceeded except by authority from him.

9. Enlisted men placed on flying status in order to be eligible to draw flying pay must participate in aerial flights to the same extent as required for officers, as indicated in subparagraphs a and b, paragraph 4.

PAY OF OFFICERS FOR LENGTH OF SERVICE.

Mr. ANTHONY. I notice that under the item of "Additional pay for officers for length of service" you are asking for \$4,600,000. Last year we gave you \$5,570,000. Why the decrease? That is the first one I have seen.

Maj. MACKAY. The large number of emergency officers coming into the service will have less service.

Mr. ANTHONY. They are beginning their initial service with the present appointment, so that they have accumulated no fogies, as they call it?

Maj. MACKEY. Yes, sir.

Mr. ANTHONY. What is the idea, Major, of combining the pay for the line and the staff? We used to carry it in two items. Now I see you want to carry it in one item.

Maj. MACKEY. The law provides so many enlisted men in certain grades, and it does not matter whether a man is in the line or staff. If he is an enlisted man of a certain grade he gets the pay of that grade regardless of whether he is in the line or staff.

Mr. ANTHONY. So you could consolidate the two.

Maj. MACKEY. Yes.

PAY OF ENLISTED MEN OF THE LINE AND STAFF.

Mr. ANTHONY. Last year you asked for \$78,000,000 for the pay of enlisted men of the line and staff. This year you are asking for \$118,391,000. That is based on this 280,000 program, less 10 per cent?

Maj. MACKEY. Yes.

Gen. LORD. This \$82,000,000 is based on the 175,000 men.

Mr. ANTHONY. \$118,000,000?

Maj. MACKEY. \$118,000,000 is for 90 per cent of 280,000 men.

Gen. LORD. This \$82,000,000, the amount that was given us for the present fiscal year was considerably less than the estimate.

DEFICIENCY.

Mr. ANTHONY. You were given \$78,000,000.

Gen. LORD. We asked for more than that.

Mr. ANTHONY. You say there was a deficiency there?

Gen. LORD. Yes; there is a deficiency. The amount given us for pay of the Army for 1921, including the increase made in the pay-increase bill, was approximately \$25,000,000 less than we estimated that we needed.

Mr. ANTHONY. One of the principal reasons for the deficit is that the Army has been recruited beyond the number that Congress thought the Army would be composed of.

Gen. LORD. The total supplementary deficiency estimate for pay is \$40,000,000, of which approximately \$25,000,000 is due to the fact that we were not given enough to provide for 175,000 men.

Mr. CRAMTON. But you were given \$78,000,000, and your estimate for 175,000 men was \$82,000,000. So the \$78,000,000 was approximately sufficient for 175,000 men under your present figures.

Gen. LORD. Yes; it was short by the difference between \$82,000,000 and \$78,000,000.

Mr. CRAMTON. Well, \$4,000,000; and the balance of whatever deficit you have above \$4,000,000 will be due to the excess.

Gen. LORD. No; the deficiency was made all through the pay. The total reduction from our estimate of 1921 was more than \$25,000,000.

Mr. CRAMTON. Do you include the officers in other branches?

Gen. LORD. Yes.

Mr. ANTHONY. In making this revised estimate for the pay of 175,000 men, for which you figure it will take \$82,000,000, do you maintain the same number of noncommissioned officers for the reduced forces that you have for the larger forces?

Gen. LORD. No.

Mr. ANTHONY. You cut them in proportion?

Gen. LORD. We prorate them.

Mr. ANTHONY. In each of the enlisted grades?

Gen. LORD. In each of the enlisted grades.

Mr. ANTHONY. Now, if we figure on a basis of 150,000 we can carry out a proportionate reduction of this figure by one-seventh?

Gen. LORD. You mean of the enlisted men?

Mr. ANTHONY. Yes; if we should reduce the number from 175,000 to 150,000, that would be cutting it down one-seventh?

Gen. LORD. Yes.

Mr. SLEMP. Let me see if I follow you. You have \$82,000,000 for 175,000 men. That is about \$500 each.

Maj. MACKEY. \$504.

Mr. SLEMP. Per man. Then when you are dealing with a reduction of 100,000 from \$118,000,000 which gives \$36,000,000, you are estimating on the basis of \$360 per man. Of course, if there are no outside frills on this thing, you ought to reduce from \$118,000,000 by \$50,000,000, if you are going to cut that down by 100,000.

Gen. LORD. That does not follow. When you undertake to prorate a reduction, the proper way is according to grades. One-seventh would be only approximate.

Mr. SLEMP. General, have you figured what the average pay of the enlisted force of the Army is, that is, of different grades privates and noncommissioned officers?

Maj. MACKEY. \$486.65 a year.

Mr. ANTHONY. Is that the average pay?

Maj. MACKEY. That is the average pay of the enlisted personnel.

Mr. ANTHONY. Are your figures for 175,000 men based upon that average?

Maj. MACKEY. A proportionate reduction.

Mr. ANTHONY. To \$82,000,000.

Mr. SLEMP. The point I do not see is where you reduce it from \$118,000,000 down to \$82,000,000, you should also reduce the Army 105,000.

Mr. ANTHONY. Your idea is that they have come down in proportion?

Col. SMITH. I think you are mistaken in reducing that 105,000. The Army is 252,000.

Mr. CRAMTON. It is on the basis of 252,000?

Col. SMITH. Yes.

PAY FOR ENLISTED MEN, NATIONAL GUARD.

Mr. ANTHONY. For pay for enlisted men, National Guard. \$1.00. That is a nominal item?

Maj. MACKEY. Yes.

Mr. ANTHONY. Are there any enlisted men of the National Guard now on active duty in the Regular Army?

Gen. LORD. I think not.

Mr. ANTHONY. Do you contemplate assigning any? Is there any authority for putting an enlisted man of the National Guard on active duty in the Regular Army until he is called out?

Gen. LORD. I think not. He must be called into the Federal service.

PAY OF ENLISTED MEN, ENLISTED RESERVE CORPS.

Mr. ANTHONY. For pay of enlisted men in the Enlisted Reserve Corps.

Col. HICKMAN. We have Maj. Gurley here, who is one of the officers called into the General Staff under the bill, who is working on that. It would perhaps be a good time to hear what is going on. He is one of the Reserve Corps officers.

STATEMENT OF MAJ. G. P. GURLEY.

Mr. ANTHONY. You are an officer of the National Guard?

Maj. GURLEY. Yes, sir; of the Reserve Corps.

Mr. ANTHONY. Of the National Guard?

Maj. GURLEY. No; of the Reserve Corps only.

Mr. ANTHONY. You are assigned to active duty as a member of the General Staff?

Maj. GURLEY. Under section 39.

Mr. ANTHONY. You have charge of the Reserve Corps, both officers and men; your work, I mean, embraces both?

Maj. GURLEY. Yes. Just let me explain how that is divided. One committee is working on the regulations of the Officers' Reserve Corps and another on the Enlisted Reserve Corps, and ours embraces both the Enlisted Reserve Corps and Officers' Reserve Corps.

Mr. ANTHONY. What is the present strength of the Enlisted Reserve Corps?

Maj. GURLEY. There is none. There was no appropriation for the Enlisted Reserve Corps in the last bill except a nominal sum, and the Enlisted Reserve Corps was entirely discharged when the Army was demobilized, and we have been working, well, I should say, since about the 1st of September, working up regulations and policies for them. So at the present time there is no Enlisted Reserve Corps.

NUMBER OF MEN IN ENLISTED RESERVE.

Mr. ANTHONY. So it is problematical the number of men that you will have in the enlisted reserve?

Maj. GURLEY. If the chairman will see just a minute the explanation of what the general plan is that we are working on, I think I can explain how the Enlisted Reserve Corps comes in. The organized reserves will be initiated by the assignment of the reserve officers that we have at present. We have about 66,000 reserve officers at present, and we have so far worked up regulations that have gone out for comment, not only to the different branches of the department but to the reserve officers and former officers throughout the country. We have gotten the returns on those, and we are practically ready to put out a final policy.

Mr. ANTHONY. You propose to organize skeleton organizations?

Maj. GURLEY. Yes. These will be called skeleton organizations.

Mr. ANTHONY. Do you propose to authorize them to enlist men for these organizations?

Maj. GURLEY. Yes. The enlisted strength will be only the higher-grade noncoms. This 50,000 will contemplate perhaps eight noncoms to a company, and those will be organized after the officers have been assigned to the units localized around the country. In other words, we try to reconstitute the old National Army divisions as far as possible.

Mr. ANTHONY. You expect to secure your men largely from the veterans of the war?

Maj. GURLEY. That is it; and from the responses we have had throughout the country we feel very optimistic that the enlisted strength will fill up immediately. One reason for holding the organization down to the low figure, say, possibly 4 per cent or some 6 per cent of the authorized strength for a company, is, first, the matter of expense; that is, we can train a few experienced men, a few trained noncommissioned officers, more effectively than we can train a large body of men.

Mr. ANTHONY. But what is the proposed pay for these enlisted men?

Maj. GURLEY. On active duty, according to the act, the same pay as the same grade in the Regular Army.

Mr. ANTHONY. If they are not called out they get nothing.

Maj. GURLEY. They get nothing except on active status.

Mr. ANTHONY. Do you propose to call them up for a period of training?

Maj. GURLEY. The law says that 15 days' service can be required of all officers and privates, actual service, and our policy will be to call out all of them as soon as possible after the organization has become effective—that is, after the organization has been crystallized. Then it becomes a policy of training; once in three years perhaps the general plan will be to call for three divisions in a corps area, and after the organization has been effected we would hope to call out one division, a certain division one year and another division the next year, and so on, so that each division would be called out every third year.

Mr. ANTHONY. Is it probable that you will have any considerable organization perfected by this summer or by this fall?

Maj. GURLEY. At the present outlook we will.

Mr. ANTHONY. So that you feel that there is a necessity for this appropriation?

Maj. GURLEY. We feel that it is necessary in two ways, for in the first place if we are to have the reserve it is necessary to get the amount in order to make an effective organization. It is necessary to give them this training in order to keep them up on their job, and more than that it is necessary to have the appropriation available so we can recruit these men.

Mr. ANTHONY. Major, if these men are called out for training, the item would just be required for their pay?

Maj. GURLEY. That is it.

Mr. ANTHONY. Where do you propose to get the money for the transportation, subsistence, etc.?

Maj. GURLEY. I can not say as to what department that comes under.

Gen. LORD. Transportation and subsistence appropriation.

Mr. ANTHONY. It is included in the general items for transportation of the Army, etc.?

Gen. LORD. Yes, sir.

SIZE OF ENLISTED RESERVE, RESERVE OFFICERS' TRAINING CORPS.

Mr. SLEMP. How many men did you say it would involve?

Maj. GURLEY. This appropriation calls for 50,000 men for 15 days. That would not mean that every man must be called for 15 days. Some men are going to volunteer for longer periods so that they can be sent to school—for instance, the Infantry School at Camp Benning, or some such school. Selected men who would volunteer would be sent to such schools. But you see it is essential that we have——

Mr. SLEMP. What would be the maximum length of time that you would send a boy to school under this provision?

Maj. GURLEY. Well that depends on the course at the different schools. I am an Infantry officer and am familiar with the Benning School. That is a 3 months' course offered by the National Guard and we plan the same thing for the Organized Enlisted Reserve Corps.

Mr. SLEMP. Then it would be possible to provide 3 months' school for 16,000 men?

Maj. GURLEY. It would be in that proportion. The number would be very small that would be sent to the special schools. For instance, for the reserve officers at Benning the committee has estimated that 280 a year would be all that could be sent to that school. That is about 1½ per cent of the Infantry officers.

Mr. SLEMP. The general purpose of this appropriation would not be to prepare men to become officers?

Maj. GURLEY. No; to keep them where they are.

Mr. SLEMP. More to keep reserve forces of enlisted men.

Maj. GURLEY. That is it. As a matter of training a man becomes an officer. It comes up in the appropriation for the Reserve Officers Training Corps, the appropriations in the citizens' training camps. The underlying idea of this is that we have these trained officers and men who have come out of the war and whose services can be had almost for the asking, and it is to enable us to use their services, to keep them abreast of the military developments, and to keep up their interest. It is not to try and turn out these enlisted men into officers. It is to enable the reserve corps or the organized reserve corps to function.

Mr. CRAMTON. Is it the idea that eventually this reserve corps will develop into a Federal Army, competing with the National Guard?

Maj. GURLEY. One of the reasons why our organization provides for a skeletonized division is to avoid any competition with the National Guard. It is not to build up a force that is able to go out and operate as such. It is simply to provide the officers and enlisted personnel to assimilate the untrained men that will come in in time of war.

For instance, with the National Army division they had from the time war was declared about a month to select candidates for the officers' schools, then three months at the school, and then the same period at least for the selection of the noncommissioned officers from the draft men and the development of those noncommissioned officers, probably somewhere around eight months from the time war was declared to get the noncommissioned personnel for a unit. Now we can take these officers who are experienced, and these noncommissioned officers, and form them into organizations, give them an opportunity through these two weeks' training to function and to have an opportunity to combine practice and minor tactics. We would have all that done away with and we would have the framework on which the mass of untrained soldiers can be completed. The number, I say, to whom we would give more training than that would be very limited.

Mr. SLEMP. You are talking about the pay of enlisted men. Of course——

Maj. GURLEY. Enlisted reserve.

Mr. SLEMP. Not officers, but enlisted men.

Maj. GURLEY. That appropriation for officers has already been discussed, but the two are more or less tied up.

Mr. SLEMP. You are drawing on your old enlisted men?

Maj. GURLEY. Yes.

Mr. SLEMP. And you are taking the officers of the old Army and putting in the enlisted men?

Maj. GURLEY. Here is the idea. When we speak of the reserve organization—the reserve officers and the reserve enlisted men who are formed into these organizations, we speak of them collectively, under the terms of the act, as organized reserve.

Mr. SLEMP. I understand that.

Maj. GURLEY. And the two together will be trained.

Mr. SLEMP. I understand that.

Maj. GURLEY. In field exercises. Of course, the pay for the officers for that period comes out of one item, and of the men out of another.

Mr. SLEMP. Necessarily, this matter is of a temporary nature.

Maj. GURLEY. Of the enlisted Reserve Corps?

Mr. SLEMP. Yes. From your viewpoint, the appropriation here for enlisted men for the enlisted Reserve Corps necessarily must be of a temporary nature.

Mr. ANTHONY. Of a problematic nature.

Mr. SLEMP. For the reason that you can not train a man in 15 days unless he has had military experience.

TRAINING THE RESERVE.

Maj. GURLEY. In the line. In the special branches there are going to be eligibles for the Reserve Corps without the military training. For instance, some special unit like a shoe-repair shop, where there is required a technical qualification rather than a military qualification. But the enlisted Reserve Corps will be made up from the citizens' training camp.

Mr. SLEMP. That is what I want to get at.

Maj. GURLEY. I thought that was what you wanted. When a man has had the red camp, the first one of a series of camps, he is then

eligible for the Enlisted Reserve Corps, and has to go into the Enlisted Reserve Corps if he wishes to take at some time some other camp.

Mr. SLEMP. Then that two weeks will be of some use to him.

Maj. GURLEY. Yes; the two weeks is to be devoted almost wholly to organization training, the training of the individual soldier, because we will have the volunteer training when we have these organizations at home on inactive status without any expense, through lectures and demonstrations and through various means that they can use while in that status which will be proper training so that when they do go to camp the two weeks will be taken advantage of fully.

Mr. CRAMTON. What opportunity is there in your organization for enlisting men skilled in a certain trade or occupation that is not military in its nature, but becomes very essential in case of emergency?

Maj. GURLEY. That man is eligible for the particular branch and particular grade. For instance, we might take some man who is a professional motor repair man who would be eligible in that particular service as sergeant.

Mr. CRAMTON. The only way that he can be listed so that he could be called out in case of an emergency would be to put him into this Enlisted Reserve Corps and subject to call for 15 days a year?

Maj. GURLEY. Yes. The Enlisted Reserve Corps under the 1916 act was composed of technically trained men. This has the same feature with regard to that class of men and has the additional arm of the combat arm which requires men of military experience.

Mr. SLEMP. I would like to ask one more question. A man of certain training of that kind, training that they would get and would necessarily have in their usual occupation, they would not get equivalent training in the 15 days, would they, that would fit them for service, and would you not be liable, in requiring 15 days of men of that kind, to lose the most desirable men that might otherwise be entered on the reserve?

Maj. GURLEY. Just along that line, the different branches have different plans along those technical lines, and it is very likely that in the case of a man of that type that he would not be called out for this period except possibly once in several years in order to fit into his organization. But if we have got him as a trained mechanic, or whatever his job is, he is fitted for that job without any further training, and he would not be required to take it.

Mr. ANTHONY. Is that all under this item?

Maj. GURLEY. I would like, Mr. Anthony, just to give the impression that has been received, and read into the record a letter of comment of Col. William Barclay Parsons, of New York, a very distinguished civil engineer, who is one of the reserve officers to whom we submitted a part of this plan. He says:

I have received copy No. 53 of the Provisions Regulations of the Organized Reserve and have studied them in consultation with other officers on whose judgment I can rely.

We are all agreed that the program submitted is excellent and provides a foundation on which there is every hope that a thoroughly successful Organized Reserve can be built.

The war showed that a reasonably satisfactory soldier can be constructed out of average American material in a comparatively short time, but that something

much more is needed to produce a satisfactory officer. The scheme of the Organized Reserve as contained in this document very wisely omits for the moment any attempt to train privates, but concentrates its efforts on the training of officers and the higher grades of noncommissioned officers. This plan is one which we thoroughly approve.

Then he suggests:

The first of such suggestions is that the plan be put into operation at as early a date as possible. It would be highly desirable that the reserve should consist of commissioned and noncommissioned officers who had experience in the A. E. F. These men are becoming scattered; the young ones are marrying, and all are reassuming or assuming civil responsibilities. Immediately upon demobilization a large number of these men could have been secured for service in the reserve; as time goes on it will be more and more difficult to get them.

The second suggestion is that the cadre should at least during the initial stages be kept as small as possible. It would be both psychologically and politically wise to be able to report the Organized Reserves as fully organized even if the organization numbers were small, rather than to report a large reserve as only partially organized. Not having before me the new tables of organization and particularly the Engineering Regiment which I understand will be considerably modified from the existing tables of organization, I can not make any suggestions as to what the cadre should be except that it should be kept down to the minimum limit that would furnish a skeleton only large enough to be the basis for mobilization; that is to say, regimental, battalion, and company commanders, together with a sufficient number of regimental and battalion staff officers and of lieutenants. To these, of course, would be added a number of noncommissioned officers to fill the most important posts in the regimental, battalion, and company organization.

The Organized Reserves, which includes both the Officers' Reserve Corps and the Enlisted Reserve Corps, was provided for as a component of the Army of the United States by the act of June 4, 1920. The development of the Organized Reserves is dependent upon the appropriations for pay of members of the Officers' Reserve Corps and the Enlisted Reserve Corps, on active duty.

The policies and regulations for the Organized Reserves have been worked up by a committee of the General Staff, consisting of one officer of the Regular Army and three reserve officers designated as required by section 3a of the act of June 4, 1920. Two of these reserve officers also hold commissions in the National Guard. A draft of these regulations has been submitted to the chiefs of the various branches of the Army and to prominent reserve officers in different parts of the country for comment.

The plan offered meets with practically unanimous approval and the regulations will be submitted for final approval very shortly.

Briefly, the policy of the Organized Reserves is the development of organizations in skeletonized form, "cadres" of complete officer personnel and a limited number of necessary noncommissioned officers and specialists.

These cadres can be expanded in time of war without the long initial delay incident to the development of officers and noncommissioned officers.

The advantages of a skeletonized form for these organizations at this time are:

1. Avoiding any hindrance to the recruiting of the National Guard.
2. More effective training that can be given a selected personnel a training period of 15 days.
3. Minimum expense for training.

It is contemplated that each of the nine corps areas will have three divisions of the Organized Reserves with corps Army and special units in addition. The organizations will be so distributed through the country as to permit the reconstitution of many National Army organizations in the Organized Reserves.

The training of the Organized Reserves will be accomplished mainly in the periods of active duty, but this will be supplemented and made more effective by voluntary training between periods.

Training when on active duty will be either individual or organizational. The organization training will be in the field and will consist of practical instruction, minor and combined tactics, and the development of and fitting together of organizations.

Selected officers and noncommissioned officers should be given individual training through the existing special and general service schools. Attendance at these schools will ordinarily be for more than 15-day periods and must, therefore, be with the consent of the officer or enlisted man.

At present there are approximately 66,000 Reserve officers commissioned, but no enlisted reservists. The organization of the Organized Reserves will be initiated by the assignment of these officers to units. When the units have been organized with this officer personnel, recruitment of the enlisted men will be made by each unit. While recruitment as a whole seems large, it is thus decentralized so that it is in reality no more than the process of each unit recruiting its small nucleus of the essential grades of enlisted men.

In view of the large number of units that will be formed in the Organized Reserves, an estimated strength of the Enlisted Reserve Corps of 50,000 for the fiscal year 1922 is a conservative estimate. However, it will be impossible to recruit the Enlisted Reserve Corps as outlined unless the appropriations have first been made to assure that the training activities contemplated will actually be given.

The estimates for pay of the Enlisted Reserve Corps and Officers' Reserve Corps are a very small proportion of the total estimates for Army pay, 1.418 per cent in the original estimates and 1.7407 per cent in the estimates on a basis of 175,000, for the pay of Reserve officers, 0.563 per cent and 0.6906 per cent for the pay of enlisted reservists. The Organized Reserves will constitute a most important factor in our national defense, but one which will be inexpensive to maintain.

AVIATION PAY FOR ENLISTED MEN.

INCREASE IN ITEM.

Mr. ANTHONY. The next item is for aviation increase for enlisted men, \$893,376. During the present fiscal year you received \$192,726. Do you contemplate, Major, that more enlisted men of the Air Service will qualify as flyers?

Maj. MACKAY. Yes, sir. The estimated number is 3,200.

NUMBER OF ENLISTED MEN QUALIFIED AS FLYERS.

Mr. ANTHONY. How many of the enlisted men in the Air Service are now qualified as flyers?

Maj. MACKAY. I can not say definitely.

Mr. ANTHONY. Will you put that into the record?

Maj. MACKAY. Yes, sir.

Mr. ANTHONY. Put in how many there are who will qualify during the coming year.

1. Number of officers qualified as flyers as of Feb. 6, 1920.....	964
2. Number of officers qualified as flyers as of Jan. 1, 1921.....	682
3. Number of enlisted men qualified as flyers as of Jan. 1, 1921.....	181
4. Number of enlisted men who will qualify as flyers, in addition to above, during current fiscal year (estimated).....	125
5. Number of enlisted men on flying status this date, which includes mechanics as well as those under instruction as flying cadets.....	1,062

PAY OF PHILIPPINE SCOUTS.

Pay of enlisted men of the Philippine Scouts, \$1,276,388. Last year you had \$1,076,430. Why the increase?

Maj. MACKAY. The rates of pay have been slightly changed. At the time the reorganization act went into effect the Philippine Scouts were regraded along the lines of the Regular Army.

Mr. ANTHONY. They were exactly similar?

Maj. MACKAY. But with different rates of pay.

Mr. ANTHONY. They have always had different rates of pay?

Maj. MACKAY. Yes.

Mr. ANTHONY. And still have?

Maj. MACKAY. Yes.

Mr. ANTHONY. What do the enlisted men in the Philippine Scouts get?

Maj. MACKAY. They receive pay ranging from \$33 to \$10 a month.

Mr. ANTHONY. The highest noncommissioned officers get \$33?

Maj. MACKAY. And the private \$10.

Mr. ANTHONY. \$10 gold?

Maj. MACKAY. Yes.

Mr. ANTHONY. What did you do, increase the pay for the enlisted men—I mean for the noncommissioned officers or for the private: where is the increase?

Maj. MACKAY. They were changed slightly all along the line. The private got \$10 formerly—that is, immediately preceding July 1, 1920.

Mr. ANTHONY. Well, that is an increase of only a quarter of a million dollars. You must have had a pretty radical increase there. There has been no increase in the total number of men?

Maj. MACKAY. The estimated number is 9,690.

Mr. ANTHONY. How many men are now in the Scouts?

Mr. SLEMP. Something like 6,000.

Mr. ANTHONY. Do you propose to increase the number of Scouts up to the maximum?

Maj. MACKAY. That 9,690 covers the usual 10 per cent reduction, so that would be 8,621.

Mr. SLEMP. I found out the other day it was something like over 6,780 men.

Mr. ANTHONY. That is where the increase comes in.

Mr. SLEMP. In case the Army is reduced to 175,000 men you have estimated for a proportionate reduction of the Philippine Scouts? Do you think that would be advisable?

Maj. **MAC KAY**. For an enlisted strength of 175,000 men I have estimated for 6,055 Philippine Scouts. I simply applied the same percentage of reduction to the enlisted men in the Scouts that I did to the rest of the Army.

Mr. **ANTHONY**. The 9,000 figure you read is the maximum authorized?

Maj. **MAC KAY**. The law authorizes 12,000. The President may enlist 12,000, but the number which he has authorized to be enlisted under the law is 9,690.

Mr. **ANTHONY**. But it has always been less as a matter of administration?

Maj. **MAC KAY**. Yes.

Mr. **SLEMP**. I do not see how you can reduce the number of Scouts proportionately.

Mr. **ANTHONY**. You would not have to reduce them if you just leave it the way they are.

Mr. **SLEMP**. What I mean is if you make an estimate for 175,000 as against 280,000—

Maj. **MAC KAY**. That will provide pay for 6,055. That is less, of course, than the present number.

LONGEVITY PAY FOR ENLISTED MEN.

Mr. **ANTHONY**. You ask in the next item additional pay for length of service to enlisted men. You ask for an increase from \$3,500,000 to \$5,040,000. What is the argument for that?

Maj. **MAC KAY**. Well, the per capita cost for service pay for enlisted men during the fiscal year 1916 was \$32.52 a year.

Mr. **ANTHONY**. For length of service?

Maj. **MAC KAY**. For length of service. The increased strength for 1922 reduces the per capita cost to approximately \$20 per man. The law has also been changed in regard to additional pay for length of service in that they now receive the same increase that is allowed commissioned officers. They formerly received additional pay for each enlistment period.

Mr. **ANTHONY**. Does that make an increase in money for the men?

Maj. **MAC KAY**. I think that makes a little increase. They never lose credit for any service they have had. They can go out and stay out for any number of years and the service remains to their credit.

REENLISTMENT BONUS.

Mr. **SLEMP**. From what item is the bonus paid?

Mr. **ANTHONY**. For enlistment?

Maj. **MAC KAY**. That is included in the item, "Pay of enlisted men."

Mr. **SLEMP**. That is included in "Pay of enlisted men," item No. 7.

Gen. **LORD**. In the \$82,000,000.

Mr. **ANTHONY**. What do you give a man in the shape of bonus for reenlistment?

Gen. **LORD**. \$90.

Mr. **ANTHONY**. Does every man who reenlists get \$90?

Maj. MACKEY. When he enlists or reenlists for a period of three years. In the case of original enlistments the payment of \$90 is not made until his discharge, so that we only need in the next fiscal year funds to provide the \$90 for reenlistments.

Mr. ANTHONY. When he reenlists he does not get the \$90, then?

Maj. MACKEY. When he reenlists he gets it immediately on reenlistment, but if it is an original enlistment, payment is deferred until discharge.

Mr. CRAMTON. And, eventually, when his enlistment matures he will get \$180?

Maj. MACKEY. \$90 for the first and \$90 for the second; yes.

Mr. CRAMTON. \$180 for both.

Mr. ANTHONY. That is, for his second and third enlistments?

Mr. ANTHONY. You do not give a premium to a man for his first enlistment?

Maj. MACKEY. For all enlistments for 3 years.

Mr. ANTHONY. He gets a premium?

Maj. MACKEY. Yes; for reenlistment, too.

Mr. ANTHONY. When was that plan inaugurated?

Maj. MACKEY. June 4, 1920.

Mr. ANTHONY. In the reorganization act?

Maj. MACKEY. Yes.

Mr. ANTHONY. Considering the ease with which recruits are obtained, it would look as if that were unnecessary.

Mr. SLEMP. A man who is enlisted for 1 year does not get any bonus?

Maj. MACKEY. No.

Mr. SLEMP. What percentage of men does that bonus apply to?

Maj. MACKEY. Sixty per cent, it is estimated enlist for 3 years, and 65 per cent of them are original, 35 per cent being reenlistments.

Mr. CRAMTON. Is there a theory that a man entering his second enlistment is more valuable than during his first enlistment and therefore you can afford to give a man more for a second enlistment than you could for the first?

Gen. LORD. It is always considered desirable to retain experienced men.

Mr. CRAMTON. Of course, under this system that is entirely aside.

Mr. SLEMP. I was trying to run this down. What part of that \$82,000,000 is bonus money? I figure about \$6,500,000. Is that right?

Maj. MACKEY. \$3,402,000. It is estimated that there will be 37,800 reenlistments at \$90, which makes a total of \$3,402,000. The estimated number of enlistments is 180,000. Of this, 60 per cent, or 108,000, are for three years, 65 per cent of this number being originals, and 35 per cent reenlistments. Thirty-five per cent of the 108,000 are entitled to the payment of \$90 immediately.

PAY OF RETIRED OFFICERS.

Mr. ANTHONY. Pay of officers on the retired list. You are jumping from \$3,994,000 to \$5,339,000 in the present bill. Have you any increased number of officers on the retired list over last year?

Maj. MACKEY. Yes, sir; the list is constantly increasing. That provides for 1,674 officers on the retired list, 169 warrant officers and five warrant officers on the mine-planter service.

Mr. ANTHONY. Has that been computed absolutely?

Maj. MACKEY. Yes, sir.

Mr. ANTHONY. Or are you calculating on an increased number to go on the retired list during the fiscal year?

Maj. MACKEY. Those were figures that were furnished by the Adjutant General.

NUMBER ON RETIRED LIST.

Mr. ANTHONY. What I want to get at is, is this the actual number that is now on the retired list?

Maj. MACKEY. That I could not say, Mr. Anthony. The information on which the estimate was based was furnished by The Adjutant General of the Army. Then we prepared the estimate on those figures.

Mr. ANTHONY. He places a number of officers in class B with an idea that they would go on the retired list. There is no certainty that they would go on there.

Maj. MACKEY. They have probably discounted that.

Mr. CRAMTON. Could you conveniently put in some information as to the rank held by those officers at the time of their retirement period from the active service and their age at retirement?

Maj. MACKEY. That would require quite a compilation. I am afraid I could not have it done in time to have it inserted in the record.

Mr. ANTHONY. It would be 1,674 individuals.

Mr. CRAMTON. He might have averages that would be satisfactory. I do not want to ask anything that is too much work.

Mr. ANTHONY. This table gives a good deal of the information that Mr. Cramton asks for. The only question in my mind is whether the number of officers of different grades is the actual number of officers on the retired list, or is it the estimated number that will be on the retired list July 1? Can you ascertain that and put it in the record with the table?

Maj. MACKEY. Yes.

Mr. CRAMTON. There is a feeling in some quarters that there is some abuse of it. I do not want to ask for anything very elaborate, but I would like something.

Mr. ANTHONY. I think the House will want it.

Maj. MACKEY. I can probably make something up from the monthly list of officers.

Number of retired officers, Jan. 4, 1921.

Grades.	By operation of law, 64 years of age (act June 30, 1882).																After reaching the age of 62 years (sec. 1244, R. S.).																On own appli- cation.				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	After over 40 years' service (act June 30, 1882).																After over 30 years' service (sec. 1243, R. S.).																With increase of 1 grade for serv- ice in connection with the con- struction of the Panama Canal (act of Mar. 4, 1915).				Sec. 1251, Rev. Stats.				With increased rank (acts Oct. 1, 1890, Apr. 23, 1908, and Mar. 3, 1909).																With full rank of command when wounded (act of July 28, 1886).				Not in line of duty (sec. 1252, R. S.).				Sec. 26, act of June 3, 1916.																Sec. 16, act of June 3, 1916.																After failure to pass second professional exami- nation (act of Mar. 3, 1909).																Under special acts of Congress.																Additional officers (act of July 9, 1918).																After 12 years' service (act July 9, 1918).																Sec. 24b, act June 4, 1920.																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Mr. CRAMTON. I met a retired officer recently that will live longer than I will.

RETIRED OFFICERS ON ACTIVE DUTY.

Mr. ANTHONY. The next item is for increased pay of retired officers on active duty, \$225,000 last year, and you are asking now for \$369,640.

Maj. MACKAY. That contemplates the placing of 240 officers on active duty.

Mr. ANTHONY. Now, are you figuring on detailing more retired officers to active duty during the next fiscal year than are now on active duty?

Maj. MACKAY. The estimated number to be detailed on active duty is 240.

Mr. ANTHONY. How many are on active duty now, retired officers? Gen. LORD. Two hundred and sixty-six.

Mr. ANTHONY. Was there a deficiency in this item this year? Gen. LORD. I think not. How much was the estimate?

Maj. MACKAY. \$225,000.

Gen. LORD. There must have been a deficiency. With 266 retired officers on active duty, the amount allotted must have been overdrawn.

Mr. ANTHONY. Will you put that in the record?

NOTE.—It is estimated that there will be a deficiency in this item of \$208,500.

Mr. ANTHONY. The pay of retired enlisted men.

RETIRED ENLISTED MEN.

Maj. MACKAY. That provides for 5,002 estimated enlisted men.

Mr. ANTHONY. That are actually on the retired list now?

Maj. MACKAY. Well, I will find out if that is the actual number now on the retired list.

Mr. CRAMTON. What are the conditions under which an enlisted man retires?

Maj. MACKAY. He may be retired after 30 years' service on his own request, and up until 1912, I believe it was, the time of service in the Philippines and Cuba counted double toward the retirement. That was abolished in 1912.

Mr. ANTHONY. Now, you have \$3,775,496 for pay of retired enlisted men, increased to \$4,180,167. Is that the normal rate of increase?

Maj. MACKAY. That is a normal rate of increase.

Mr. Sisson. How long have you been paying them on this basis, how many years?

Maj. MACKAY. I do not quite understand your question.

Mr. Sisson. For instance, the pay of retired men, how long have you been paying them on the same basis—the same pay that they are now getting?

Maj. MACKAY. May 11, 1908.

Mr. Sisson. This is an abnormal increase, is it not? Because in 1908 it amounted to \$2,765,000.

Maj. MACKAY. That was the appropriation last year.

Mr. Sisson. I know it was; and then it jumps nearly half a million dollars in one year. Has it been increasing that rapidly each year—about half a million?

Maj. MACKAY. I am afraid that the amount appropriated was insufficient last year. That is part of the deficiency.

Mr. ANTHONY. Will you put in the record a statement as to whether there was a deficiency on that item last year?

Maj. MACKAY. Yes, sir.

NOTE.—The estimated deficiency for 1921 is \$297,649.

RETIRED ENLISTED MEN ON ACTIVE DUTY.

Mr. ANTHONY. For pay and allowances of retired enlisted men on active duty I see you are asking for \$6,000 less.

Mr. Sisson. Does the record show the number of enlisted men on the retired list?

Maj. MACKAY. Yes, sir; it will.

Mr. Sisson. Have you answered it for the record?

Maj. MACKAY. I will.

Mr. ANTHONY. Will you put in the record this analysis of the number of enlisted men on the retired list, and the same in regard to the officers?

Maj. MACKAY. Yes, sir.

Mr. ANTHONY. And be sure to find out if this is an estimated number or the actual number.

Maj. MACKAY. Yes, sir.

Statement showing number and grades of enlisted men on the retired list on Jan. 5, 1920.

Grade.	Number.	Entitled to pay of a retired warrant officer.	Grade.	Number.	Entitled to pay of a retired warrant officer.
Sergeant major.....	116	11	Sergeant bugler and chief trumpeter.....	21	1
Sergeant major, senior grade, Coast Artillery.....	8	4	Fireman.....	1	
Quartermaster sergeant, Quartermaster Corps, senior grade.....	81	34	Sergeant, line, mess, supply, and stable.....	444	3
Master signal electrician.....	66	20	Sergeant, Quartermaster Corps.....	37	1
Master electrician.....	7	3	Sergeant, Ordnance.....	165	
Band leader, chief musician..	131	3	Sergeant, band, and musician, first class.....	48	
Master engineer, senior grade.	10	5	Sergeant, Signal Corps.....	19	2
Engineer.....	4	2	Sergeant, mess, supply, and stable. Engineers.....	56	
Master engineer, junior grade.	8	2	Sergeant, Medical Department and Hospital Corps...	50	2
Sergeant, first class, Ordnance.	3		Corporal, line.....	53	
Ordnance sergeant.....	203	21	Corporal, ordnance.....	49	
Quartermaster sergeant, Quartermaster Corps.....	119	26	Corporal, band, musician, second class.....	2	
Post quartermaster sergeant..	68	13	Corporal, Signal Corps.....	3	
Post commissary sergeant....	111	7	Corporal, Engineers.....	9	
Master gunner.....	1		Corporal, Medical Department and Hospital Corps...	6	
Master hospital sergeant.....	38	17	Corporal, Quartermaster Corps	1	
Hospital sergeant.....	8	1	Cook.....	246	1
Sergeant, first class, Medical Department and Hospital Corps.....	127	31	Acting cook.....	17	
Hospital steward.....	11		First class private.....	59	
First sergeant, Signal Corps..	36	5	Private, band and musician, third class.....	2	
Electrician sergeant, first class.....	2		Private, Medical Department and Hospital Corps.....	8	
Second-class sergeant.....	1		Private, line.....	63	
Sergeant, first class, Engineers.....	8		Sergeant, A. L. M. A.....	6	
Regimental supply sergeant and quartermaster sergeant.	154	19	General service clerk.....	4	
Sergeant, first class, Quartermaster Corps.....	32	2	Saddler, sergeant, Cavalry....	2	
Regimental commissary sergeant.....	73	3	Mechanic, Coast Artillery....	4	
Squadron sergeant major.....	14	1	Artificer.....	11	
Battalion sergeant major, line.	29	1	Saddler, Cavalry.....	3	
Battalion sergeant major, Engineers.....	5		Musician, first class, Military Academy.....	10	
Color sergeant.....	128		Musician.....	5	
Battalion supply and quartermaster sergeant.....	3		Horseshoer.....	1	
Battalion quartermaster sergeant, Field Artillery.....	2		Farrier.....	3	
Steward, Army mine planter service.....	1		Master sergeant.....	74	
First sergeant.....	1,649	79	Technical sergeant.....	9	
Drum major.....	24		First sergeant, second grade..	53	
Assistant band leader and principal musician.....	39	1	Staff sergeant, third grade....	19	
			Sergeant, fourth grade.....	43	
			Private, first class, sixth grade.	3	
			Total.....	4,933	321

Mr. CRAMTON. As I understand it, there is no provision for the retirement of enlisted men except on 30 years' service?

Maj. MACKAY. Yes, sir; that is right.

Mr. ANTHONY. And for disability?

Maj. MACKAY. He is discharged on account of disability.

Mr. ANTHONY. Then his pay would be a pension?

Maj. MACKAY. Yes; a pension.

Mr. ANTHONY. How many retired enlisted men are now on active duty?

Maj. **MACKEY**. I will find that out and insert it in the record. I do not know just now.

Mr. **ANTHONY**. Can you tell us how many are now on active duty and how many it is proposed to have?

Maj. **MACKEY**. It is proposed to have 116 during the year on active duty.

Mr. **ANTHONY**. What class of work do these men do?

Maj. **MACKEY**. They are on college duty, on duty with the National Guard, recruiting, and duties of that nature.

RETIRED PHILIPPINE SCOUT OFFICERS.

Mr. **ANTHONY**. For pay of retired Philippine Scout officers' you ask an increase of \$14,000.

Maj. **MACKEY**. That amount is to provide for the retired pay of 104 Philippine Scout officers at the statutory rate.

Mr. **ANTHONY**. You are asking for an increase of \$14,000?

Maj. **MACKEY**. That additional amount is made necessary by the number who have been placed on the retired list during the past year.

Mr. **ANTHONY**. When a Philippine Scout officer is retired now, he retires on the pay of the grade of a second lieutenant, does he not?

Maj. **MACKEY**. Those retired prior to June 4, 1920, were retired on that basis, but thereafter they become a part of the Regular Army.

Mr. **ANTHONY**. Has there been any considerable number of them since June 4, 1920, retired?

Maj. **MACKEY**. Not that I know of.

Mr. **ANTHONY**. I guess there have been, have there not?

Maj. **MACKEY**. There may have been.

Mr. **ANTHONY**. It was intended that they should all undergo an examination to determine their fitness for appointment as officers in the Regular Army. I wish you would look it up and put it in the record, and state how many Philippine Scout officers were on active duty June 4, 1920, how many are now on active duty, how many were commissioned in the Regular Army, how many have been placed on the retired list, and how many have been discharged.

Maj. **MACKEY**. Yes, sir; I will do that.

Status of Philippine Scout officers.

Number of Philippine Scout officers on active duty on June 4, 1920.....	224
Number on active duty Jan. 4, 1921.....	142
Number commissioned in Regular Army since June 4, 1920.....	62
Number retired since June 4, 1920.....	6
Number discharged since June 4, 1920.....	3
Resigned since June 4, 1920.....	9
Dismissed since June 4, 1920.....	1
Died since June 4, 1920.....	1

RETIRED PAY CLERKS.

Mr. **ANTHONY**. For pay of retired pay clerks.

Maj. **MACKEY**. That provides for nine pay clerks, one ordnance and purchase clerk at the Military Academy, one superintendent of the cadets' store at the Military Academy.

Mr. **ANTHONY**. That is nearly \$2,000 less than last year. I suppose that some of these men have died.

Maj. **MACKEY**. Yes, sir; some of them have died. They have been dying off and eventually will disappear.

Mr. ANTHONY. Eventually that item will not be carried in the bill?

Maj. MACKAY. Eventually it will disappear.

Mr. SISSON. Was that provided for by law?

Maj. MACKAY. Yes, sir.

Mr. ANTHONY. The grade of pay clerk has been abolished, has it not?

Maj. MACKAY. Yes, sir.

Mr. SISSON. So that there will be no more hereafter.

Maj. MACKAY. No, sir.

RETIRED VETERINARIANS.

Mr. ANTHONY. For pay of retired veterinarians, \$3,000.

Maj. MACKAY. That provides for the pay of two retired veterinarians who are now carried on the retired list.

Mr. ANTHONY. Those were veterinary officers with commissioned grades?

Maj. MACKAY. They were retired under the act of March 3, 1911, with the pay of a second lieutenant.

Mr. ANTHONY. If a veterinary officer is an officer of the Army the same as a medical officer, why is it necessary to carry him in a separate item?

Maj. MACKAY. These were not commissioned officers.

Mr. ANTHONY. At the time of their retirement?

Maj. MACKAY. At the time of their retirement they were veterinarians.

Mr. ANTHONY. They were placed on the retired list by legislation?

Maj. MACKAY. Yes; by legislation.

Mr. ANTHONY. So that any veterinary officers who are retired now would be retired as commissioned officers?

Maj. MACKAY. They are Regular officers now, but these men were not commissioned officers at the time of their retirement.

OFFICE OF CHIEF OF STAFF—CLERKS, MESSENGERS, AND LABORERS.

Mr. ANTHONY. For clerks, messengers, and laborers in the office of the Chief of Staff you are asking for an increase in number in nearly every grade.

Gen. LORD. Mr. Chairman, Col. Hickman, of the office of the Chief of Staff, will give you that information.

Mr. SISSON. Are these men stationed in Washington?

Col. HICKMAN. Yes, sir.

Mr. SISSON. Why are they not carried in the legislative bill?

Col. HICKMAN. I suppose you gentlemen know that we have explained these items to Mr. Wood. Why they are not carried in the legislative bill I can not answer, except that they have always been carried and provided for in the Army bill.

Mr. SISSON. I am on that subcommittee as well as on this subcommittee.

Mr. ANTHONY. The idea is that they have always been considered as a part of the Military Establishment?

Col. HICKMAN. Yes; and not as employees of a bureau. That has been the deciding factor heretofore.

Mr. Sisson. My idea is that they have been carried as a part of the Military Establishment, but it makes it very difficult for this committee to determine just how much civil establishment you have.

Mr. ANTHONY. If the Chief of Staff should change the location of his office, this force would go with him?

Col. HICKMAN. Yes, sir.

Mr. ANTHONY. And is the office of the Chief of Staff fixed in Washington by law?

Col. HICKMAN. No, sir.

Mr. ANTHONY. It can be moved to another place, can it not?

Col. HICKMAN. Oh, yes; it can.

Mr. ANTHONY. I think that is one of the reasons why these employees are considered as a part of the Military Establishment.

Maj. MACKAY. We have a number of interesting situations coming up now in connection with the office of the Chief of Infantry and the office of the Chief of Cavalry, Field Artillery, and the new services created by the act of June 4, 1920.

Mr. Sisson. It keeps us constantly in confusion as to the amount of money that is paid in the city of Washington for clerical assistance for the Army Establishment when you carry these items in different bills. I agree with the chairman of this subcommittee that we ought to rearrange these appropriations so that men carried like these men are could be carried with the other clerical forces of the Army when the offices are in the same locality. I suppose the office of the Chief of Staff will remain where it is now.

Col. HICKMAN. It is likely to remain there. I have a statement that I could read very rapidly. It is the same statement I gave to Mr. Wood. It is not a very long statement. I believe I could save time by reading it and then answer questions.

Mr. ANTHONY. All right.

Col. HICKMAN (reading):

Mr. Chairman, the Chief of Staff is the immediate adviser of the Secretary of War on all matters relating to the Military Establishment, and is charged by the Secretary of War with the planning, development, and execution of the Army program.

By virtue of that position and by authority of and in the name of the Secretary of War, he issues such orders as will insure that the policies of the War Department are harmoniously executed by the several corps, bureaus, and other agencies of the Military Establishment, and that the Army program is carried out speedily and efficiently.

In order that he may perform the duties with which he is charged, the Chief of Staff has under his immediate control a body of officers which constitutes the War Department General Staff, and he is specifically authorized to attach to the General Staff two officers from each of the noncombatant arms, and such National Guard and Reserve Corps officers as are provided by law as may be necessary in order that the work of the staff may be efficiently performed.

The statutory clerical force now provided for the office of the Chief of Staff is as follows:

1 chief clerk, at \$2,500 per annum	\$2, 500
1 clerk, at \$2,250 per annum	2, 250
6 clerks, at \$2,000 each per annum	12, 000
8 clerks, at \$1,800 each per annum	14, 400
13 clerks, at \$1,600 each per annum	20, 800
21 clerks, at \$1,200 each per annum	28, 800
26 clerks, at \$1,000 each per annum	26, 000
1 chief messenger, at \$1,000 per annum	1, 000
3 messengers, at \$840 each per annum	2, 520
10 messengers, at \$720 each per annum	7, 200
1 laborer, at \$720 per annum	720

In addition to the above civilian personnel on the regular statutory roll an allotment of \$24,200 was made by the Secretary of War to the office of the Chief of Staff from the appropriation for temporary employees contained in the legislative, executive, and judicial appropriation act for the fiscal year 1921 for the employment of the necessary additional clerical assistance in order to keep up to date the work of the various divisions and branches of the War Department General Staff.

The appropriation for the statutory roll of this office providing for 115 clerical and subclerical positions for the fiscal year 1921 amounted to.....	\$147, 590
The amount allotted to this office by the Secretary of War for the fiscal year 1921 for additional employees amounted to.....	24, 200
Total.....	171, 790

In submitting the estimates for the fiscal year 1922 the amount of \$24,200 has been added to the amount appropriated for the present statutory roll, and therefore the estimate submitted does not represent any increase in the total sum allowed for the present fiscal year, but is simply the bringing together of the two amounts and classifying them under one appropriation.

In asking this change several small increases are recommended in order to preserve a proper ratio between the different grades, and the present grade of clerk at \$1,000 has been abolished, it having been found impossible to secure competent clerks, stenographers, and typists at this salary in competition with the larger salaries paid by commercial houses.

From the following schedule it will be seen that the total number of civilian employees will be reduced by 5, viz:

	Clerical.	Sub-clerical.	Total.
Statutory roll, fiscal year 1921.....	100	15	115
Additional roll, Nov. 30, 1920.....	13	9	22
Total.....	113	24	137
Estimated statutory roll fiscal year 1922.....	110	22	132
Net loss.....	3	2	5

The following table shows the reduction in the civilian personnel of the office of the Chief of Staff at different dates since July 1, 1919:

Date.	Number of civilian employees.			Percentage of reduction.
	Statutory roll.	Additional roll.	Total.	
July 1, 1919.....	136	226	362	Per cent
July 1, 1920.....	115	40	155	..
Nov. 30, 1920.....	115	22	137	9.
Estimate fiscal year 1922.....	112	.....	132	4

A statement showing the distribution of all the civilian employees of the office of the Chief of Staff on November 30, 1920, is attached hereto, marked "A."

The work entailed in putting into effect the provisions of the national defense act, as amended by the act of June 4, 1920, has thrown additional burdens on the General Staff, and every effort has been made to reduce the number of civilian employees and to readjust their duties so as to meet with the needs of the situation. A careful study has been made of the organization of this office, and it is believed that the proposed civilian force is the lowest with which the current work of the office can be handled efficiently for some time to come and it is not believed that it would be in the interest of the Government to attempt it with a smaller personnel.

In view of the existing conditions as set forth in the foregoing statement, it is urgently recommended that the estimate as submitted be approved by the committee.

1901, 1902, 1903, 1904, 1905, 1906, 1907, 1908, 1909, 1910, 1911, 1912, 1913, 1914, 1915, 1916, 1917, 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 25

[illegible]

Statement showing the distribution of the employees of the office of the Chief of Staff, regular and additional rolls, as of Nov. 30, 1920—Continued.

Office, division, or branch.	Regular roll.												Additional roll.						Total sub- cler- ical.		
	Clerical.						Subclerical.						Clerical.							Subclerical.	
	\$2,500.	\$2,250.	\$2,000.	\$1,800.	\$1,600.	\$1,400.	\$1,200.	\$1,000.	\$840.	\$720.	\$1,600.	\$1,400.	\$1,200.	\$900.	\$720.	\$480.					
Supply Division—Continued.																					
Current supply branch.....					1								2					6			
Research branch.....					1	1	2	3										5			
Totals for division.....			1		3	3	4	5			1				3			18			
Military Intelligence Division:																					
Draftsmen.....			1	2	3													6			
Photographers.....			1	1														2			
Totals for division.....			2	3	3													8			
Grand total.....	1	1	6	8	13	21	24	25		1	3	11	1	8	1		112	24			

There is one vacancy in the \$1,000 grade in the Military Intelligence Division.

Mr. ANTHONY. You are asking for next year the same amount as you had last year?

Col. HICKMAN. Yes, sir.

Mr. ANTHONY. With exactly the same organization that you had before?

Col. HICKMAN. Yes, sir. We have settled down and we are on a working basis and we would like to have that force perpetuated. We can make a reduction of five in the total number of clerks employed, but we are asking for a slight increase in pay of some of the employees.

Mr. ANTHONY. Are you asking for an increase in pay for any individuals?

Col. HICKMAN. I will give you a table that will show a slight increase. In asking this change several increases are recommended. It has been found impossible to secure competent clerks, stenographers, and typists at \$1,000 per year, because there is such a great demand for them in commercial houses.

Schedule setting forth data concerning appropriations for the pay of clerks, messengers, and laborers on the regular statutory roll in the office of the Chief of Staff for the fiscal years 1920 and 1921, and estimate for the same purpose for the fiscal year 1922.

Designation and salary.	Appropriation fiscal year 1920.		Appropriation fiscal year 1921.		Estimate fiscal year 1922.		Proposed changes from appropriation fiscal year 1921.			
	Num-ber.	Amount.	Num-ber.	Amount.	Num-ber.	Amount.	Increase.		Decrease.	
							Num-ber.	Amount.	Num-ber.	Amount.
Chief clerk, at \$2,500.	1	\$2,500	1	\$2,500	1	\$2,500				
Clerk, at \$2,250.	1	2,250	1	2,250	1	2,250				
Clerks, at \$2,000.	6	12,000	6	12,000	6	12,000				
Clerks, at \$1,800.	8	14,400	8	14,400	8	14,400				
Clerks, at \$1,600.	13	20,800	13	20,800	14	22,400	1	\$1,600		
Clerks, at \$1,400.	21	29,400	21	29,400	23	32,200	2	2,800		
Clerks, at \$1,200.	24	28,800	24	28,800	57	68,400	33	39,600		
Clerks, at \$1,000.	26	26,000	26	26,000					26	\$26,000
Chief messenger, at \$1,000.	1	1,000	1	1,000	1	1,000				
Captain of watch, at \$900.	1	900								
Messengers, at \$840.	3	2,520	3	2,520	4	3,360	1	840		
Packer, at \$840.	1	840								
Assistant messen- gers, at \$800.					14	11,200	14	11,200		
Laborers, at \$800.					2	1,600	2	1,600		
Assistant messen- gers, at \$720.	15	10,800	10	7,200					10	7,200
Laborers, at \$720.	2	1,440	1	720					1	720
Gardener, at \$720.	1	720								
Watchmen, at \$720.	6	4,320								
Laborer, at \$600.	1	600								
Messenger boy, at \$480.					1	480	1	480		
Charwomen, at \$240.	5	1,200								
Total.	136	160,490	115	147,590	132	171,790	54	58,120	37	33,920

RECAPITULATION.

Appropriation for fiscal year 1921 (pay of the Army)-----	\$147,590
Additional roll allotment, fiscal year 1921-----	24,200
Total allotment-----	171,790
Total estimated, fiscal year 1922-----	171,790
Appropriation for fiscal year 1920 (pay of the Army)-----	160,490
Additional roll allotment, fiscal year 1920-----	138,754
Total allotment, fiscal year 1920-----	299,244

Mr. Sisson. Do you expect to have any trouble in the future?

Col. HICKMAN. Yes, sir; we expect to have trouble.

Mr. Sisson. Well, you will not have any trouble in the future. You can hire clerks now.

Col. HICKMAN. I have not been able to.

Mr. Sisson. But you are here in Washington. I am talking about outside of Washington. It is easy enough to get them where you do not have the Treasury located near by.

Mr. SLEMP. Are these clerks in the civil service?

Col. HICKMAN. Yes, sir.

Mr. SLEMP. All of them?

Col. HICKMAN. Yes, sir.

Mr. SLEMP. That is, if there was a vacancy in one of the Army clerkships, you would call on the Civil Service Commission?

Col. HICKMAN. Yes, sir.

TRANSFER OF EMPLOYEES FROM LUMP SUM TO STATUTORY ROLL.

Mr. CRAMTON. Where do the increased salary items appear in the bill, outside of No. 1? You are not asking to transfer these items so as to increase the salaries carried in the statute?

Col. HICKMAN. No; we are asking at this time to combine the two rolls.

Mr. CRAMTON. But the increase of salary only shows in one item, one clerk increased from \$1,800 to \$2,000.

Mr. Sisson. The only increase of salary that would be possible under this language would be in order to promote somebody from a lower grade to a higher grade. This is under the General Staff College. You are increasing salaries by promoting people from a lower grade to a higher grade?

Col. HICKMAN. Yes. We have reduced the total number of persons by five, and have used that money value elsewhere.

Mr. CRAMTON. Yes; but your bill does not show it.

Mr. ANTHONY. It has been pointed out to me that the number of your clerks has been increased; instead of 13 it is 14, at \$1,600. Now, it is your idea to promote one of the clerks from one of the classifications to the next higher classification?

Col. HICKMAN. Yes, sir.

Mr. Sisson. You move them up one grade?

Col. HICKMAN. Yes, sir.

Mr. Sisson. And they get an increased salary?

Col. HICKMAN. Yes, sir.

Mr. CRAMTON. But the bill shows a decrease in the total number of employees, and I do not see any vacancies at the bottom of the list.

Mr. Sisson. No; this language carries additional people and not less people. You have some people on your pay roll who are paid out of the lump sum?

Col. HICKMAN. Yes, sir.

Mr. Sisson. You are simply transferring a number of those employees to the statutory roll?

Col. HICKMAN. Their money value; yes, sir.

Mr. Sisson. I know, but you are actually dropping five clerks from your permanent roll?

Col. HICKMAN. Yes, sir.

Mr. Sisson. It shows an increase on page 31, and if you were to take your lump-sum employees and take them out, you would show less people—if you took all those people paid on the lump-sum roll.

Col. HICKMAN. Yes, sir.

Mr. Sisson. But in view of the fact that you are dropping some of your lump-sum employees and transferring some to the statutory roll, it shows an actual increase in number.

Col. HICKMAN. Yes; that is correct, as applied to the statutory roll. But five less when the present statutory and lump-sum rolls are considered.

Mr. ANTHONY. Colonel, is this increased number of clerks made necessary by an increase in the activities of the General Staff?

Col. HICKMAN. No, sir. We are asking for no increase when the two rolls provided for this fiscal year are considered.

Mr. ANTHONY. Or simply by reason of the fact that the General Staff is carrying on in time of peace a number of activities that it assumed during the war.

Col. HICKMAN. No, sir; we have made a steady decrease in that regard. Our numbers will now line up in this way: The statutory roll for 1921 contained 100 clerical and 15 subclerical positions, the additional roll 13 clerical and 9 subclerical, giving us 137 total. The estimated statutory roll for 1922 provides for 110 clerical and 22 subclerical, total 132, or a reduction of 5 in number.

Mr. ANTHONY. How many officers were in the General Staff before we entered the war?

Col. HICKMAN. I will supply that information.

Mr. ANTHONY. About the same number?

Col. HICKMAN. No, sir; It is larger now.

Mr. ANTHONY. How much larger?

Col. HICKMAN. I should think 50 per cent larger.

Mr. ANTHONY. Well, you have increased it.

Col. HICKMAN. Yes; I can not give you the exact figures right now. I should think it is 50 per cent.

Mr. ANTHONY. Yes; but just before we entered the war we increased the number. Did the reorganization act increase it over that number?

Col. HICKMAN. Yes, sir; it gives about 93 men, I think, with the authority to bring in two additional officers from each noncombatant arm and to add some reserve and National Guard officers.

Mr. ANTHONY. Every time you create a board of general officers to perform certain activities, you have to assign clerical help to them?

Col. HICKMAN. To some extent, but we are getting along with very little additional help up there, considering the work we are doing. On July 1, 1920, we had 115 on the statutory roll and 40 on the additional roll, a total of 155.

Mr. SLEMP. You spent that amount of money with a larger force than you are asking for now.

Mr. Sisson. This is the statutory roll.

Col. HICKMAN. We had an allotment from the lump-sum appropriation.

Mr. CRAMTON. What do you figure is the total number of persons provided for in that paragraph?

Col. HICKMAN. One hundred and thirty-two.

Mr. CRAMTON. What do you figure it was last year in the same paragraph?

Col. HICKMAN. I think it was 115.

Mr. SLEMP. You said 137.

Col. HICKMAN. One hundred and thirty-seven with the additional roll that is in the other bill, in the legislative, executive, and judicial bill. I also have a chart which shows exactly how the offices are now organized in connection with the way these people are employed, which I would like to put in the record.

(This is chart A, before submitted.)

LABORERS.

Mr. ANTHONY. You are asking for two laborers at \$800 each and a messenger boy at \$480. That is an increase. Those positions were never provided for before, were they?

Col. HICKMAN. Not in the statutory roll.

Mr. ANTHONY. You had them in recent years, did you not?

Col. HICKMAN. Yes, sir.

Mr. CRAMTON. Are you putting in the record, in response to any of these questions, a statement of just what the combined roll amounted to last year?

Col. HICKMAN. Yes, sir; I will furnish you with a printed statement, a detailed statement, showing all this information that I am talking to you about.

Mr. CRAMTON. What I want is the combination of this bill and the other bill.

Col. HICKMAN. Yes; I think my statement will cover that.

Mr. Sisson. I notice here you have 5 messengers. You have about 30 new people on the statutory roll. Do you need those 5 extra messengers and 1 messenger boy, which makes a total of 6, to messenger those 30 people? In other words, it looks to me like you are over-messengering your force down there.

Col. HICKMAN. No, sir; we need them all. Those men help to clean the offices, and some of them are on duty at night.

Mr. Sisson. You have no charwomen to do that work?

Col. HICKMAN. Well, there are a few charwomen, but there are not enough charwomen to do all of the work in the War Department Building.

MESSENGERS.

Mr. Sisson. Do you assign the messenger boys to each of these offices?

Col. HICKMAN. Oh, no; by no means. We have one messenger serving a number of offices.

Mr. ANTHONY. Are these messengers the ones that you see sitting in the chairs at the tables in the halls in the War Department?

Col. HICKMAN. Yes, sir; those men report in the morning and help to do all the heavy work in policing the building.

Mr. ANTHONY. Do they do janitor work?

Col. HICKMAN. Yes, sir; they help with it.

Mr. Sisson. In addition to your messengers you have two laborers?

Col. HICKMAN. Yes, sir.

Mr. Sisson. There is a tendency to overmessenger some of these departments in Washington. You will have to be watchful.

Col. HICKMAN. Well, I do not think that is the case here. I think we need all we are asking for.

Mr. ANTHONY. How many messengers are there in the War Department Building, under the War Department, do you know?

Col. HICKMAN. No, sir; I do not.

Mr. ANTHONY. We are only providing in this item for the offices of the Chief of Staff.

Col. HICKMAN. Yes, sir.

Mr. ANTHONY. One of the criticisms made by Members of Congress on the floor is the apparent large number of messengers that they see cluttering up the halls in the War Department.

Col. HICKMAN. Well, they see them when they are all together. When you gentlemen come to the department you find them all in the halls. Those employees report for work very early in the morning.

Mr. ANTHONY. And they actually do some manual labor?

Col. HICKMAN. Yes; they do. Before office hours, if you came into the building before 9 a. m., you would find these men engaged in policing and caring for the building, and then they wash up, and from 9 o'clock on they stay in the halls and act as messengers.

Mr. Sisson. These men have nothing to do with the building, do they?

Col. HICKMAN. Oh, yes; they report at 7.30 o'clock in the morning and help police the building.

Mr. ANTHONY. Do you have charwomen employed in the War Department Building?

Col. HICKMAN. Yes, sir; there are a few charwomen employed. I think they are in The Adjutant General's office.

Mr. Sisson. They have a perfect army of charwomen down there to keep the War and Navy Building clean, but this is an additional messenger force that we do not know about.

Mr. ANTHONY. Is this force based upon the work that is actually being done down there now, or is it based on the proposed increase of the Army to its maximum strength?

Col. HICKMAN. It is based on the work that is being done now. We are really short of help down there now.

Mr. ANTHONY. And you have carried this expense as a constant expense in recasting your figures for these items?

Col. HICKMAN. Yes, sir. This has not been changed.

Mr. ANTHONY. The next item is for clerks, messengers, and laborers, General Staff College.

Gen. LORD. Mr. Chairman, the witness is on the way down from the General Staff College, and Gen. Harris is on the way to answer questions on the next item. With the approval of the committee we will take up the item for additional pay while on foreign service.

Mr. ANTHONY. That pertains to Army field clerks?

Gen. LORD. Yes; for commutation for heat and light.

Mr. ANTHONY. Gen. Harris wants to tell us all about field clerks.

Gen. LORD. Yes, sir.

Mr. ANTHONY. Then we had better start in on commutation of quarters.

Gen. LORD. On page 34, line 2.

PAY OF CONTRACT SURGEONS.

Mr. ANTHONY. For pay of contract surgeons, you ask for \$56,000 for the next year and you had \$63,000 last year. You are gradually cutting down the number of contract surgeons. We provided for 35.

Maj. MACKAY. That was the actual number of contract surgeons in the service on the date that these estimates were prepared, so that I assume that would remain.

Mr. SISSON. Do you need these contract surgeons?

Maj. MACKAY. Oh, yes.

Mr. ANTHONY. I suppose the idea is—at least, that is the argument given to us—that at some isolated post it is economy to have a contract surgeon when his services are required instead of maintaining a medical officer at that post.

Maj. MACKAY. Yes, sir; that is the idea.

Mr. ANTHONY. Will you put in the record the number of contract surgeons that you now have in the service, the number that you expect to have in the next fiscal year, their pay, their stations, and the conditions of their employment.

Maj. MACKAY. I will insert that in the record.

● *Contract surgeons, United States Army, now on active duty.*

Name.	Monthly compensation.	Station.	Strength of command.				Character of duty.
			Military.	Civilian.	Total.	Date, 1920.	
Blair, Vilray P.	\$75.00	Jefferson Barracks, Mo.	1,420	.....	1,420	Nov. 30	Consultant.
Boyer, Ulysses S. ...	150.00	Rock Island Arsenal, Ill.	76	61	137	...do....	Surgeon.
Buskirk, Wm. H. ...	100.00	Fort Keogh Remount Depot, Mont.	28	.....	28	...do....	Do.
Cantrell, Wm. B. ...	150.00	Wingate General Ordnance Depot, N. Mex.	3	200	203	...do....	Do.
Catto, William B. ...	150.00	Fort Reno Remount Depot, Okla.	94	.....	94	...do....	Do.
Cooke, Robert P.	150.00	Front Royal Remount Depot, Va.	66	.....	66	...do....	Do.
Curlee, Elijah L.	75.00	Camp McClellan, Ala..	24	.....	24	...do....	Do.
Dabney, Wm. C.	150.00	Atlanta, Ga.	54	.....	54	...do....	Attending surgeon.
Ellis, Alfred L.	150.00	Raritan Arsenal, N. J.	396	1,331	1,727	...do....	Surgeon.
Garten, Frank.	100.00	Fort Schuyler, N. Y..	725	.....	725	...do....	Do.
Gilchrist, John M. ...	100.00	Springfield Armory, Mass.	94	1,057	1,151	...do....	Do.

¹ Oct. 31, 1920.

² Nov. 9, 1920.

Contract surgeons, United States Army, now on active duty—Continued.

Name.	Monthly compensation.	Station.	Strength of command.				Character of duty.
			Military.	Civilian.	Total.	Date, 1920.	
Huber, G. Carl.....	\$150.00	Ann Arbor, Mich.....	.....	.....	.....	.....	Experimental nerve repair for head, Surgeon General's office; examination of neurosurgical preparations.
Ivy, Robert H.....	75.00	Walter Reed General Hospital, D. C.	1,703	.....	1,703	Nov. 30	Consultant.
Kerr, Harry H.....	150.00	.....do.....	1,703	.....	1,703	...do....	Head surgery, spinal cord, peripheral nerve.
McAfee, Loy.....	150.00	New York, N. Y.....	.....	.....	.....	.....	Preparing medical and surgical history of war.
McKnight, Mary P.	150.00	Surgeon General's office (Army Medical School).	.....	.....	.....	.....	Do.
Maher, Loretta K..	150.00	Attending surgeon's office, Washington, D. C.	44	.....	44	Nov. 30	Ear, nose, throat.
Mountain, Geo. W.	150.00	Augusta Arsenal, Ga..	56	188	244	Oct. 31	Surgeon.
Muller, George P...	1.00	Philadelphia, Pa.....	.....	.....	.....	.....	Secretary, peripheral nerve commission, Surgeon.
Neel, Harry A. P...	150.00	Frankford Arsenal, Philadelphia.	87	1,607	11,694	Nov. 30	Do.
Noonan, Francis J..	150.00	Watervliet Arsenal, N. Y.	73	823	1,896	...do....	Do.
Norton, Dana O....	75.00	Reserve Officers' Training Corps, Fort Collins, Colo.	30	.....	30	...do....	Do.
Pool, Henry J.....	75.00	Erie Proving Ground, Ohio.	76	248	1,324	...do....	Do.
Porter, Joseph Y., Jr.	150.00	Key West Barracks, Fla.	137	31	168	...do....	Do.
Reeder, Henry H...	75.00	M. T. G. D., Jeffersonville, Ind.	92	.....	92	...do....	Do.
Richards, Benj. F..	75.00	Fort Robinson, Nebr..	53	.....	53	...do....	Do.
Rose, Wallace D....	75.00	Fort Logan H. Roots, Ark.	28	.....	28	...do....	Do.
Schaeffer, George C.	150.00	Columbus Barracks, Ohio.	1,437	.....	1,437	Oct. 31	Maxillo facial service.
Sims, Bartlett U....	150.00	Reserve Officers' Training Corps, College Station, Tex., Agricultural and Mechanical College.	70	.....	.....	Nov. 30	Surgeon.
Smith, Clarence A..	125.00	Seattle, Wash.....	17	7	124	Oct. 31	Attending surgeon.
Smith, William A..	150.00	Charleston, S. C.....	172	182	354	...do....	Attending surgeon and Surg. A. S. Base.
Stein, William F...	75.00	Juneau, Alaska.....	.....	.....	.....	.....	Surgeon attending Alaska Road Commission and United States Signal Corps; no station.
Sutherland, William H.	75.00	Rochester district ordnance depot; contract to be annulled Dec. 31, 1920.	.....	.....	.....	.....	Surgeon.
Vanneman, Joseph S.	50.00	Reserve Officers' Training Corps, Princeton University, Princeton, N. J.	40	.....	40	Nov. 30	Do.
Voe, Royden M....	150.00	Reserve Officers' Training Corps, Cornell University, Ithaca, N. Y.	60	.....	60	...do....	Do.
Yoe, Richard T.....	150.00	Louisville, Ky.....	75	.....	75	...do....	Assistant to recruiting officer at Louisville, Ky.

1 Oct. 31, 1920.

PAY OF NURSES.

DEFICIENCY.

Mr. ANTHONY. For pay of nurses, you are asking for \$1,313,000 for the next fiscal year and you had \$819,000 for the present year. Did you have a deficiency in that item?

Maj. MACKAY. Yes, sir; there is a deficiency in that item.

Mr. ANTHONY. Do you know how large the deficiency is?

Maj. MACKAY. No, sir; I do not.

Mr. ANTHONY. Can you put that in the record?

Maj. MACKAY. I can ascertain it and put it in the record.

(NOTE.—It is estimated that the deficiency under this item will amount to \$359,172.)

Mr. ANTHONY. Are you increasing the number of nurses?

Maj. MACKAY. The number of nurses provided for is 1,488.

Mr. ANTHONY. That is based on the Army at its maximum strength?

Maj. MACKAY. That is based on the Army at its maximum strength, less 10 per cent.

Mr. ANTHONY. So that we will be enabled to shrink this item in proportion to the size of the Army.

Maj. MACKAY. Yes, sir. I have already done it in the statement I have just given you. It has been reduced to \$935,937 for an Army of 175,000 enlisted men.

Mr. ANTHONY. And in case the Army is reduced further, it will go down proportionately?

Maj. MACKAY. Yes, sir.

Mr. Sisson. These are all provided for in the reorganization act?

Maj. MACKAY. The law regarding nurses was enacted on July 9, 1918, in the appropriation bill for the fiscal year 1919. The pay had not been changed during the reorganization of the Army.

Mr. Sisson. Do you think you will need that many nurses in time of peace?

Maj. MACKAY. Yes, sir. The total authorized, commissioned, and enlisted personnel amounts to 297,717. The total enlisted strength amounts to 280,000 enlisted men and 17,717 officers.

Mr. ANTHONY. Do you appoint nurses in proportion to the number of enlisted men, whether you need them or not?

Maj. MACKAY. As they may be needed. They are appointed as needed.

NUMBER OF NURSES.

Mr. ANTHONY. How many nurses have you in the Regular Army now?

Maj. MACKAY. I will have to find that out and insert it in the record.

NOTE.—On January 3, 1921, the following nurses were in service on duty at the places indicated: Germany, 66; Philippines, 92; Hawaii, 32; United States, 879; total, 1,069.

Mr. ANTHONY. Are these nurses altogether on duty at Regular Army hospitals or are any of them on duty at hospitals where they are taking care of wounded and disabled men of the recent war?

Maj. MACKEY. I think they are all on duty at Army hospitals.

Mr. Sisson. And that is to take care of the men now in the service.

Maj. MACKEY. Yes, sir.

Mr. Sisson. This has nothing to do with the disabled or discharged soldiers?

Maj. MACKEY. It has nothing to do with those who are no longer connected with the military establishment.

NOTE.—Since the above statement was made it has been ascertained that war risk patients were, on January 3, 1921, receiving treatment at Army Hospital, Washington, D. C., 32; General Hospital, Fort Sam Houston, Tex., 74; Letterman General Hospital, San Francisco, Calif., 66; Walter Reed General Hospital, Washington, D. C., 32; General Hospital, Fort Sam Houston, Tex., 74; Fitzsimmons General Hospital, Denver, Colo., 337; total, 532.

Mr. ANTHONY. That is rather a large number of nurses for an Army in time of peace.

Maj. MACKEY. They estimate a 5 per cent bed capacity, which would be 14,886 beds, and one nurse to 10 patients.

Mr. Sisson. That is, provided you have an Army of 290,000.

Maj. MACKEY. That is the basis for an Army of any size.

Mr. Sisson. And in the event we cut it down to 175,000 or 150,000—

Maj. MACKEY (interposing). It can be correspondingly reduced.

RATE OF PAY.

Mr. Sisson. What is the pay of a nurse now?

Maj. MACKEY. It ranges from \$720 a year for the first period of three years, \$780 for the second period of three years, and then \$840, \$900, and \$960 a year.

Mr. ANTHONY. When we get the Surgeon General up here we can find out the number of sick men he has in the Army.

Mr. Sisson. Has that salary been increased?

Maj. MACKEY. It has been increased 20 per cent in the increased pay bill.

Mr. Sisson. And then the salary is over and above the upkeep? The nurse gets her keep?

Maj. MACKEY. Oh, yes.

HOSPITAL MATRONS.

Mr. ANTHONY. For pay of hospital matrons, you ask \$3,000. For the last year you had \$3,600.

Maj. MACKEY. That estimate for 25 hospital matrons at \$10 a month—

Mr. ANTHONY (interposing). \$10 a month?

Maj. MACKEY. Yes, sir.

Mr. ANTHONY. What is the hospital matron? What are her duties?

Maj. MACKEY. It is an old grade. Her duties are to repair the bed linen, the pajamas of the patients, and things of that sort.

Gen. LORD. That is an old-established grade. I remember, at Fort Meade, some years ago, a Chinaman was paid as a hospital matron.

Mr. ANTHONY. Do you know how many there are now?

Maj. MACKEY. There were 15 in service on September 10, 1920.

AUTHORITY FOR EMPLOYMENT OF.

Mr. ANTHONY. What is the authority for the employment of hospital matrons?

Maj. MACKAY. Section 1277, Revised Statutes.

Mr. ANTHONY. They are not mentioned in the reorganization act, are they?

Maj. MACKAY. I do not think so.

Gen. LORD. It is permanent law, enacted some years ago. I will insert it in the record:

Hospital matrons—Employment.—Hospital matrons * * * may be employed in post or regimental hospitals in such numbers as may be necessary. (Sec. 1239, R. S.)

Hospital matrons—Pay and allowances.—Hospital matrons in post and regimental hospitals shall receive \$10 a month * * *. One ration in kind or by commutation shall be allowed to each. (Sec. 1277, R. S.)

Mr. ANTHONY. What is the purpose of it—at some isolated post they need some woman to look after the hospital where they do not want to go to the expense of a regular nurse?

Gen. LORD. I think it is more for the purpose of mending mattresses and pillow slips.

Mr. ANTHONY. It is really a misnomer, then?

Gen. LORD. Yes; I think so.

Mr. Sisson. They are not really hospital matrons.

Gen. LORD. No, sir.

Mr. ANTHONY. For pay of reserve veterinarians, you strike out the appropriation.

Maj. MACKAY. That has been abolished.

COURTS-MARTIAL AND COURTS OF INQUIRY.

Mr. ANTHONY. For expense of courts-martial and courts of inquiry you had \$87,000 for this fiscal year and you ask for \$182,000 for the next fiscal year. What is the reason for that increase?

Maj. MACKAY. The estimate for 1921 was on a per capita cost basis of 50 cents per enlisted man per annum.

Mr. ANTHONY. Was that not enough?

Maj. MACKAY. That was insufficient. For the fiscal year 1920 the average per capita cost was over 76 cents—to be accurate, 76.2 cents.

Mr. CRAMTON. Have you any idea, in getting away from the war period down to normal, that that will decrease?

Maj. MACKAY. Yes, sir. I was going to say that the increase in the per capita cost for 1920 is probably principally due to the bringing to trial of draft evaders.

Mr. ANTHONY. There are some 250,000 of those that are on the lists awaiting trial. They do not propose to try them, evidently, do they?

Maj. MACKAY. I could not say. That is a matter for the Judge Advocate General.

Mr. CRAMTON. The courts-martial have not been able to work much faster than the pardoning power, have they?

Mr. Sisson. I do not know but what the pardoning power ought to be a little ahead of the courts-martial.

Mr. ANTHONY. We may want to talk to the Judge Advocate General about that.

Gen. LORD. He will not come before you in the regular order. Would you want to call him for that purpose?

Mr. ANTHONY. What do you think about that, Mr. Sisson?

Mr. Sisson. This is a considerable item. I do not know just how to justify increasing the amount from \$87,000 to \$182,000.

Maj. MACKEY. As a matter of fact, \$87,000 did not pay the bills last year.

Mr. Sisson. Well, that might satisfy the members of this committee, but that little explanation might not satisfy 400 Members of Congress.

Mr. ANTHONY. I think at some convenient time later on we might ask the Judge Advocate General down to speak to us upon this matter.

Gen. LORD. I think part of it is due to the revision that is being made of the court-martial manual and the provision which will give greater pay to the court reporters.

Mr. Sisson. General, the chairman of the committee will be called upon to make an explanation to the Members of the House on the floor as to why this increase should be granted.

Mr. ANTHONY. I think we can get that better probably from the Judge Advocate General.

Gen. LORD. All our figures are based on the figures from his office.

Mr. ANTHONY. Do they give you an argument with an estimate of this kind when it comes from the office of the Judge Advocate General?

Maj. MACKEY. Yes, sir. I might say, Mr. Chairman, that the cost for 252,000, at 76 cents, which was the per capita cost during the last year, amounts to \$192,024, but this estimate has been made at \$182,000 even.

Mr. Sisson. I do not think that means anything, because you might have a great many courts-martial and a good deal of dissatisfaction in the Army, and then when times begin to get a little hard the boys would probably be satisfied to stay in the Army and you would not have so many courts-martial.

Mr. ANTHONY. How much have you spent so far this year?

Maj. MACKEY. The actual expenditures to date are not available. The estimated deficiency for the fiscal year 1921 is \$85,514.

Mr. CRAMTON. I think you suggested that the 76 cents included some hang over from the war.

Maj. MACKEY. Yes, sir. I made some reduction on account of that. The amount was \$192,000, but it has been cut \$10,000, making it \$182,000, in view of the fact that many draft evaders would not be brought to trial.

COMMUTATION OF QUARTERS, HEAT, AND LIGHT.

Mr. ANTHONY. The next item, for quarters, heat, and light, etc., is a rather large item, \$7,196,000. For this year you had for that purpose \$6,131,000. What is the explanation for that increase?

Maj. MACKEY. The average base pay of an officer, including the temporary increase, is \$3,055 per year. Now, the annual pay of a cap-

tain is \$3,120 and his commutation of quarters is \$576, so that the average commutation of quarters is found by means of proportion, and to that is added the heat and light for three rooms, which makes an average cost of \$755.80.

Mr. ANTHONY. Of course, this item is dependent on how the Army is assigned, whether or not the officers are assigned to duty at places where no quarters are available.

Maj. MACKAY. Yes, sir; and it is estimated that 50 per cent of all the officers will be on a commutation basis.

Mr. ANTHONY. Is there a deficiency in that item this year?

Maj. MACKAY. Yes; there is. I can not say offhand how much it will be.

Mr. ANTHONY. Will you put the figures in the record?

Maj. MACKAY. Yes; I will do so.

The estimated expenditures for 1921 amount to \$8,954,939.

Mr. ANTHONY. Showing the estimated expenditure for the present year.

Maj. MACKAY. Yes, sir. Now, that includes the reserve officers for 15 days when they are ordered on active duty. There are 30,000 reserve officers and they get their share.

Mr. ANTHONY. For the reserve officers that are ordered out for the period of training?

Maj. MACKAY. Yes, sir.

Mr. ANTHONY. Would not those officers be provided with quarters by the Government? They would certainly be given tents in training camps?

Maj. MACKAY. But they might be assigned to duty at places where there are no quarters. They might be on duty in the field and be entitled to commutation for dependents, and in the case of staff officers, they might be stationed here in Washington.

Mr. ANTHONY. The argument to that is that they ought to be put where they can be accommodated.

SOLDIERS' DEPOSITS.

The next item is for interest on soldiers' deposits, \$100,000. The soldiers still continue to receive from the Government 4 per cent per annum on their savings?

Maj. MACKAY. Yes, sir.

Mr. ANTHONY. If he does not draw his pay, but allows it to accumulate, you allow him 4 per cent.

Maj. MACKAY. He has to draw his money and deposit it. He has to make an actual deposit.

Mr. ANTHONY. How much money have you in such deposits at this time?

Maj. MACKAY. On October 1, 1920, there was to the credit of depositors, \$2,540,190.11. I have a statement here that might be interesting.

Report of soldiers' deposits received and repaid.

Year.	Deposits received.		Deposits repaid by finance officers.		
	Number.	Received.	Number.	Principal.	Interest.
1917.....	52,654	\$1,219,193.02	16,446	\$596,771.98	\$48,104.39
1918.....	55,435	1,568,449.32	13,622	803,603.76	69,315.51
1919.....	126,487	5,252,601.03	59,425	1,725,277.17	128,158.34
1920.....	47,005	2,381,479.70	215,793	7,335,911.06	331,283.65
Total.....	281,581	10,421,723.07	305,286	10,461,564.97	576,861.89

Soldiers' deposits received and repaid during present fiscal year to Oct. 1, 1920.

Year.	Deposits received.		Deposits repaid by finance officers.		
	Number.	Received.	Number.	Principal.	Interest.
1921.....	12,244	\$475,123.53	14,560	\$614,642.43	\$30,225.43

Amount remaining to credit of depositors.....	\$2,540,190.11
Largest number of deposits received by one finance officer during one month.....	2,432
Largest amount of deposits received by one finance officer during one month.....	\$120,680.97
Largest number repaid by one finance officer during one month.....	3,758
Largest amount repaid by one finance officer during one month.....	\$296,796.26
Largest interest repaid by one finance officer during one month.....	\$2,886.70

Mr. Sisson. Has there been an increase or a decrease?

Maj. MacKay. It varies. The highest amount of interest that has been paid on deposits was in 1920 when it was \$331,283.65, and the lowest in late years, in 1916, was \$41,000.

Mr. Anthony. Does the Government utilize that fund? Does it use it or does it lie idle?

Maj. MacKay. I do not know about that. It is placed in the Treasury.

Mr. Anthony. It is part of the active balance in the Treasury?

Gen. Lord. Yes, sir.

Mr. Sisson. It goes into what they call miscellaneous receipts and is paid out for any purpose?

Gen. Lord. Yes, sir.

Mr. Anthony. So that under present conditions the Government is making a savings-bank profit on it?

Gen. Lord. Yes, sir.

Mr. Anthony. The next item is for pay of expert accountant.

Maj. MacKay. You heard Gen. Rivers on that this morning.

Gen. Lord. Col. Gowen, of the General Staff College, is here, and with your permission we will take up the item on page 31 for clerks, messengers, and laborers.

TUESDAY, JANUARY 4, 1921.

STATEMENT OF COL. J. B. GOWEN, EXECUTIVE OFFICER, GENERAL STAFF COLLEGE.**SALARY INCREASE FOR LIBRARIAN.**

Mr. ANTHONY. Colonel, are you asking for any increase in your clerical force at the General Staff College?

Col. GOWEN. No increase in number, but an increase of \$200 in the appropriation. That \$200 is to increase the salary of the librarian from \$1,800 to \$2,000. The librarian is a woman who has been in Government employ for nearly 23 years. She is a very valuable clerk, and she could command probably more than twice that salary outside.

Mr. ANTHONY. So that the increase in the item is solely this proposed increase in salary?

Col. GOWEN. Yes, sir.

Mr. Sisson. She is carried here as a clerk.

Col. GOWEN. That is her official designation on the Army roll—clerk.

Mr. Sisson. How could you get a librarian out of the civil service as a clerk? I suppose she is under civil service?

Col. GOWEN. Yes, sir. She came into the service in 1898.

Mr. ANTHONY. Where was your appropriation for this purpose for the General Staff College carried in 1917?

Col. GOWEN. In 1917 it was under the office of the Chief of Staff. Last year was the first year we were separated from the office of the Chief of Staff.

Mr. ANTHONY. Has the number of officers at the General Staff College recently been increased?

Col. GOWEN. Yes, sir.

Mr. ANTHONY. Did that cause any extra increase in the clerical force?

Col. GOWEN. No, sir; there has been a decrease. For the four years prior to the war there was an average of 23 students down there and 21 other officers on duty, and the clerical help at that time averaged 45 and subclerical help 27, while now we have an average of 10 officers on duty, clerical help 25, subclerical help 21, so that the clerical help has been cut in half, while the officers are two and one-half times the number they were before the war.

Mr. ANTHONY. Are all the civil employees of the General Staff College paid out of this item?

Col. GOWEN. No, sir; there are several paid out of maintenance of the General Staff College—the engineer, the assistant engineer, the carpenter, and the elevator conductor.

Mr. ANTHONY. This item just covers the clerical and subclerical help?

Col. GOWEN. Yes, sir.

Mr. ANTHONY. What do the laborers do? Janitor work?

Col. GOWEN. Yes; they do janitor work and general work around the building.

Mr. Sisson. Is there any way of finding out just how much it costs to maintain this college?

Col. GOWEN. Yes, sir. Last year this appropriation was \$48,100, and the other appropriation was \$25,000.

Mr. Sisson. That does not include the cost of the college. You have a certain number of officers detailed there and their salaries are paid. I would like to know what it costs to maintain this school.

Mr. ANTHONY. Would it be fair, Mr. Sisson, to put in the salaries of the officers? The officers' salaries would go on anyway, no matter where they were.

Mr. Sisson. That may be true, but in maintaining the Military Establishment officers ought to be serving a good purpose, and if this is needed it is just as distinct an expense as if you had appropriated directly for it. That is the trouble in appropriating for these things. We do not know what the unit cost is. I would like you to prepare for the record, if you can do so without too much trouble, a statement showing just what it costs. You could find out the pay of the officers who are assigned to that college.

Mr. ANTHONY. Would you want to include the student officers?

Mr. Sisson. Of course, if the student officer does not do anything but study down there, that is not an expense to the college, but it is, nevertheless, an expense to the Army.

Mr. ANTHONY. You have a corps of instructors?

Col. GOWEN. Yes, sir.

Mr. ANTHONY. And you have a corps of student officers?

Col. GOWEN. Yes, sir.

Mr. ANTHONY. Then, in addition to their salaries, you have this item for clerks, messengers, and laborers, and then you have the other item for maintenance, including heat and light.

Mr. ANTHONY. Now, aside from those two items, are there any other appropriations?

Col. GOWEN. There are no other appropriations.

Mr. Sisson. In the item for maintenance, do you include your books and other stationery?

Col. GOWEN. No; we include the purchase of books for the library, but the supply department supplies us with stationery as far as they can, but sometimes they do not have it in stock and we can not get it in that way.

Mr. Sisson. Mr. Chairman, we have had this thing come up frequently and there is great difficulty in finding out the expense of a proposition of this kind because you can not get at the unit cost, because it is covered in so many different appropriations.

Mr. ANTHONY. I would like to see a complete statement of the cost of the institution, but outside of the salaries of the student officers.

Mr. Sisson. You could easily eliminate that and show what I want as well as what you would like to have.

From: Executive officer, General Staff College.

To: Chief of Finance.

Subject: Unit cost of General Staff College.

In compliance with request of the Committee on Appropriations, House of Representatives, there is submitted herewith cost of operation of the General Staff College, including pay, etc., of officers and enlisted men on duty at the college. The current fiscal year was taken as the basis for figuring this cost.

Appropriation fiscal year 1921, "Pay of clerks, messengers, and

laborers, General Staff College"----- \$48,100.00

Appropriation fiscal year 1921, "General Staff College"----- 25,000.00

Allotted from funds of the Quartermaster Corps for repairs to building, roads, and walks-----	\$3,700.00	
Cost of supplies furnished by supply departments, including gasoline, automobile parts, stationery, lumber, etc-----	7,801.72	
Allotted by War Department for printing and binding of books for library-----	2,000.00	
Pay of civilian chauffeurs and garage foremen (paid out of Quartermaster Corps funds)-----	5,020.00	
Pay of faculty and executive staff for period July 1, 1920, to June 30, 1921:		
1 major general-----	\$8,000.00	
8 colonels-----	44,800.00	
11 lieutenant colonels (1 of these July 1, 1920, to Sept. 17, 1920; 1 July 1, 1920, to Sept. 4, 1920)-----	52,100.83	
3 majors-----	10,540.44	
		115,441.27

Of the foregoing, 3 colonels, 5 lieutenant colonels, and 1 major are to be relieved from duty at college on or before Feb. 1, but their pay is figured for the entire year.

Commutation of quarters, heat, and light for members of faculty and executive staff who are not furnished quarters, heat, and light in kind for period July 1, 1920, to June 30, 1921:		
2 colonels-----	2,568.72	
1 lieutenant colonel-----	1,002.04	
1 major-----	942.72	
		4,513.48

Of the foregoing, 1 colonel is to be relieved on or before Feb. 1, but commutation for quarters, heat, and light is figured for entire year.

Pay of student body for period Aug. 15, 1920, to June 30, 1921 (students ordinarily report at college between Aug. 15 and 20 each year):		
47 colonels (of these, 1 figured July 1 to Nov. 1, 1920, died; 1 figured July 1 to Oct. 10, 1920, relieved; 1 figured July 1 to Dec. 9, 1920, relieved)-----	219,342.25	
29 lieutenant colonels-----	130,983.43	
9 majors-----	38,235.69	
		388,561.37

Commutation of quarters, heat, and light for members of the student body who are not furnished quarters, heat, and light in kind, period Aug. 15, 1920, to June 30, 1921:		
47 colonels (3 of these figured for part of year as noted above under pay)-----	53,641.84	
25 lieutenant colonels-----	24,346.75	
5 majors-----	4,009.20	
		82,007.79

In addition to foregoing there are two students from the Marine Corps and two from the Navy, pay or commutation not included above.

Pay of 21 enlisted men on duty in General Staff College for period July 1, 1920, to July 30, 1921-----	14,328.00	
Value of rations furnished same period based on cost of 50 cents per ration-----	3,780.00	
Clothing value, same period-----	1,503.06	
Commutation of quarters, heat, and light, 3 enlisted men, same period-----	846.00	
		20,547.06
Aggregate-----		702,772.19

TUESDAY, JANUARY 4, 1921.

STATEMENT OF BRIG. GEN. PETER C. HARRIS, ADJUTANT GENERAL OF THE ARMY.

ARMY FIELD CLERKS' PAY.

(See p. 456.)

Mr. ANTHONY. General, we would like to hear from you in regard to the item in reference for Army field clerks and civil-service messengers at the headquarters of the several territorial departments, Army, and corps headquarters, etc.

Gen. HARRIS. We have asked for the same number next year as was authorized for the current year.

Mr. ANTHONY. These field clerks are all employed outside of Washington?

Gen. HARRIS. They are not now. There are still some field clerks in Washington. They are employed on war work, cleaning up war work in Washington.

Mr. ANTHONY. The purpose is to employ them outside of Washington?

Gen. HARRIS. Yes, sir. There is a special appropriation for the additional field clerks carried in the bill last year authorizing the Secretary to employ 4,272.

Mr. Sisson. Are those stationed in Washington doing no work except field work?

Gen. HARRIS. There are some doing work in the departments—just a few. For instance, there is one who is with the Judge Advocate General as a law clerk, and the Judge Advocate General has not yet been able to replace him, but he will very soon. Those at the headquarters of Gen. Pershing are included in this number. There are some in the General Staff working on the historical records of the war and there are some working on the distribution of wound and death certificates.

Mr. ANTHONY. You are asking for both increased number and increased pay, are you not, for Army field clerks?

Gen. HARRIS. No, sir.

Mr. ANTHONY. For instance, last year you had 15 at \$2,000 and this year you ask for 20 at \$2,240 each.

Mr. CRAMTON. Last year they had 675 field clerks. This year they have 900, I take it.

Mr. Sisson. They are all increases. There is nothing but increases. They are increased from \$2,000 to 2,240 and from \$1,600 to \$2,040.

Maj. MacKAY. As soon as the estimates were submitted, the Secretary of War directed that a reduction be made in the amount.

Gen. HARRIS. My original estimate called for 900 field clerks, but the number has been reduced to the number set out in the bill.

Mr. Sisson. The estimate by Gen. Harris was as the text shows in the bill.

Gen. LORD. It has been reduced by order of the Secretary of War to the number that was carried by the bill for this fiscal year.

Mr. Sisson. In other words, the Secretary goes back to the current law.

Gen. Lord. Yes, sir.

Mr. Sisson. He simply maintains the increase in salary, but he has identically the same number.

Gen. Lord. Yes, sir. The basis of the Secretary's action, I understand, is that under the reorganization act the Army field clerk is an expiring person, that is, there will be no additional ones created, and the Secretary, construing the law to mean that, required that the estimates should be reduced to the number carried in the current law.

Mr. Cramton. The size of the Army does not matter in connection with them, whether we have 175,000 or 220,000 men?

Gen. Harris. Our theory is that in the future the clerical work at the headquarters of tactical units in the field, tactical divisions and tactical armies, will be performed by warrant officers and enlisted men, and we will not have any field clerks with the armies in the field hereafter. On that account, the designation of field clerk is now a misnomer, and I was going to suggest that the title be changed to the former title of headquarters clerk, which would be more descriptive than the present title, considering their duties, because the field clerk now does not go into the field. We have planned to replace them by warrant officers and the higher grades of enlisted men, but the clerks assigned to headquarters of corps areas and headquarters of permanent camps will still be field clerks.

Mr. Cramton. But if the title should be changed, would the size of the Army have any effect upon the number of headquarters clerks?

Gen. Harris. Well, it would have some effect.

Mr. Cramton. I notice your estimate is the same for 175,000 as for 252,000 men.

Gen. Harris. Well, there would be some little difference but not very much.

Mr. Anthony. How many warrant officers have you that are assigned to this class of duty now?

Gen. Harris. The warrant officers are just now being appointed.

Mr. Anthony. You have not appointed your quota of warrant officers to take over this class of work?

Gen. Harris. No, sir. Some of them will be assigned to headquarters, but our plan is that they will take over the work in the field at tactical units headquarters, and the clerical work at corps area headquarters and department headquarters will be done by civilian field clerks.

Mr. Anthony. Has the recent change in the tactical organization of the Army caused an increase in the number of Army field clerks or headquarters clerks?

Gen. Harris. I do not know that it has caused an increase, but formerly the clerical work at headquarters of tactical units was performed by enlisted men detailed from the line. At the beginning of this war we endeavored to correct that as much as possible by employing field clerks. Now, we are trying to discharge the field clerks and have special enlisted men and warrant officers for that work.

Mr. Anthony. Are you asking for an increase in pay for individual clerks here?

Gen. Harris. Yes, sir; for the higher grade clerks.

Mr. ANTHONY. How much do you propose to increase these clerks—from \$2,000 to \$2,240?

Gen. HARRIS. \$2,000 plus the bonus.

Maj. MACKEY. That is the increase allowed by the pay bill.

Mr. ANTHONY. You are making the bonus permanent law.

Gen. HARRIS. Well, it is appropriated each year.

Mr. ANTHONY. Well, if we carried them at their old designations at \$2,000, they would still get the bonus?

Gen. HARRIS. They would as long as that law was in force.

Mr. ANTHONY. This would make it permanent law?

Gen. HARRIS. Well, it would not make it permanent because you would have to reappropriate it next year. I do not know that it makes any material difference.

Mr. ANTHONY. Has that same change been carried all the way through? Has the bonus been added in all these cases?

Gen. HARRIS. Yes, sir.

Mr. Sisson. All through your clerical force?

Gen. HARRIS. That is, as to the field clerks.

Mr. Sisson. And not for anybody except field clerks?

Gen. HARRIS. No, sir.

MESSENGERS' PAY.

Mr. ANTHONY. You increase your messengers from \$720 to \$750. What is the reason for that?

Gen. HARRIS. It is very difficult to get messengers for \$720.

Mr. Sisson. You will not have much trouble after a while. You can get all you need after a while.

Mr. CRAMTON. How many messengers have you now?

Gen. HARRIS. One hundred messengers.

Mr. ANTHONY. Where are they employed?

Gen. HARRIS. At the corps area headquarters. None of them is employed in Washington.

Mr. CRAMTON. You have the full quota at \$720?

Gen. HARRIS. Yes, sir.

Mr. ANTHONY. What is the duty of a messenger at corps area headquarters?

Gen. HARRIS. Very much like that in the War Department.

Mr. ANTHONY. Just about the same as in the War Department in Washington?

Gen. HARRIS. Yes, sir; almost identical.

Mr. ANTHONY. Do you have any enlisted men available around headquarters for purposes of this kind?

Gen. HARRIS. Where the number of messengers assigned is not sufficient, there is nothing to prevent the corps area commander from assigning enlisted men, but the plan is to employ civilians as far as possible for messenger work. There are not supposed to be any enlisted men employed at corps area headquarters except for orderlies for the commanding general, etc.

ESTABLISHING HEADQUARTERS IN GOVERNMENT-OWNED BUILDINGS.

Mr. ANTHONY. Have you moved your headquarters out of the large cities?

Gen. HARRIS. We are doing it.

Mr. ANTHONY. Have you adopted that as a policy?

Gen. HARRIS. Yes, sir.

Mr. ANTHONY. For instance, you have moved the headquarters from Chicago to Fort Sheridan?

Gen. HARRIS. Yes, sir.

Mr. ANTHONY. And from Omaha to Fort Crook, Nebr.?

Gen. HARRIS. Yes, sir.

Mr. CRAMTON. What about Baltimore?

Gen. HARRIS. That is a new headquarters. They are temporarily located in the city of Baltimore, but they are going to be moved to Fort Howard, outside of the city.

Mr. ANTHONY. You have done that as a measure of economy, to occupy buildings that were Government owned?

Gen. HARRIS. Yes, sir.

Mr. ANTHONY. Are there any troops at all these points?

Gen. HARRIS. Yes, sir; there are troops at nearly all of them now.

Mr. ANTHONY. The number of headquarters clerks you are asking for is dependent upon the size of the Army, the number of enlisted men?

Gen. HARRIS. Well, it is to a certain extent, but is dependent somewhat upon the organization of the Army. The increased number of headquarters, the corps areas, has increased the overhead slightly.

Mr. CRAMTON. Then why is there not a reduction in cutting the Army from 252,000 to 175,000 men? Why is there not a difference in the estimates?

Gen. HARRIS. Well, there is some work that has to be done at headquarters.

Mr. CRAMTON. Then there is no relation between the size of the Army and the number of headquarters clerks?

Gen. HARRIS. Well, there is some slight difference, but not knowing how much assistance would be given at corps area headquarters by the warrant officers, we should not want to make any reduction. There must be the same number of officers at the corps area headquarters with a smaller territory as there would be with a larger territory. The volume of business would be larger in a larger corps area.

NUMBER OF CLERKS.

Mr. CRAMTON. Can you give us easily the allocation and the number of enlisted headquarters clerks, as you call them, under your estimate?

Gen. HARRIS. We propose to place substantially 50 at each of the corps area headquarters, and there are nine corps area headquarters, which would be, roughly, 450. There are three departments—Hawaii, Panama, and the Philippines—and then there is a force in Germany at the present time. Then, in addition, there are the schools such as those at Camp Benning and Fort Riley and Fort Leavenworth and elsewhere.

Mr. CRAMTON. If the divisions in some of these corps areas are skeletonized to such an extent that it will effect a material reduction in the size of the Army, would not that lead to a lessening of the need for headquarters clerks?

Gen. HARRIS. It would, slightly.

Mr. CRAMTON. To what extent?

Gen. HARRIS. It would be very difficult to make an estimate.

Mr. CRAMTON. If 675 are required for an Army of 252,000, what is your idea as to the number required for an Army of 175,000?

Gen. HARRIS. We think we will need more than 675 for an Army of 252,000, but the Secretary has decided that it would have to be reduced.

Mr. ANTHONY. If the Army is cut to 150,000 enlisted men, how many less of these headquarters clerks can you get along with?

Gen. HARRIS. It would be difficult to answer that offhand, because it would depend on the organization. There is no doubt but that if we reduce the number of corps areas to the number of departments we had before the war, we can reduce the number of headquarters clerks considerably. If you reduce the number of enlisted men serving in a corps area, you reduce the amount of clerical work, and possibly you could reduce the number of headquarters clerks somewhat. Up to the present time we have not been able to determine how many warrant officers we would have for that work.

Mr. ANTHONY. But as the warrant officers come in and are available to your branch of the service, would you let out a certain number of these civilian clerks?

Gen. HARRIS. Not very many. The warrant officers are planned to be placed in the tactical units, so that we will have either enlisted men or warrant officers with the tactical units, and no civilian force with the tactical units.

Mr. ANTHONY. In how large a tactical unit will you have a warrant officer for clerical work?

Gen. HARRIS. All the way from a regiment up to an army.

Mr. ANTHONY. That is, would the regiment have a warrant officer on clerical work?

Gen. HARRIS. One warrant officer. A division would have—I would not like to answer offhand. I will put that in the record. I find that a division would have 11 warrant officers in addition to those provided for the regiments and other units of which it is composed.

Mr. Sisson. If you take these warrant officers, either they will not do any additional work or these field clerks have not done any additional work, and if you replace the field clerks with warrant officers you would either decrease the amount of field work on the field force or you would have to dismiss some of them.

Gen. HARRIS. We have been reducing the number of field clerks every month, or in fact, every week, since the beginning of the present fiscal year. We have authority now for the employment of 675 plus 4,272. That is the authorized number. The authorization for 4,272 extends to 4 months after the expiration of the emergency. Then, in addition to those 4,272, we have 675; so that we have now considerably more than what we are asking for next year.

Mr. CRAMTON. You have authority for more?

Gen. HARRIS. Yes, sir.

Mr. CRAMTON. And you have more?

Gen. HARRIS. We actually have more than 675.

Mr. ANTHONY. They are engaged on work growing out of the war?

Gen. HARRIS. Yes, sir; such as I have mentioned. The distribution of wound and death memorial certificates authorized by the French Government and now authorized by our Government, the distribution of Victory medals, etc.

STATUS OF RECORDS OF LATE WAR.

Mr. ANTHONY. Are the individual records of soldiers of the late war right up to date now?

Gen. HARRIS. They are. Of course, there are some few cases—

Mr. ANTHONY (interposing). If you get an inquiry in regard to the service of any soldier in this late war, you are prepared to give the information just as quickly as you do in regard to a soldier of the Civil War?

Gen. HARRIS. Yes, sir; we are furnishing information about thousands of soldiers every day now to the Bureau of War Risk Insurance and others. In my report, received yesterday, in the Bureau of War Risk Insurance, for instance, we had fewer unanswered inquiries from the Bureau of War Risk Insurance than we had disposed of on the previous day, so that the work is current.

Mr. ANTHONY. You are up to date?

Gen. HARRIS. Yes, sir; we are up to date.

Mr. CRAMTON. And yet they still blame things on you, General.

Gen. HARRIS. They do? Of course, we have millions of records, and undoubtedly there will be conflicts of records. In a great many cases you will find that an officer did not make the record and in other cases there is a discrepancy in the spelling of names. For instance, I had the case of one man where I found his reports in our records in nine different places, due to the different spellings of his name. His name was spelled in nine different ways, and in cleaning up the files we found nine different reports in nine different places and all spelled differently for that one man. That illustrates the great difficulty we have.

Mr. ANTHONY. Have you completed the work of correction of these records? For instance, there are errors made in the records of a good many men.

Gen. HARRIS. We are working on that every day and, in fact, many cases are straightened out each day; but, unless there is some complication in the records, we are able to furnish, and are furnishing, information very quickly.

Mr. ANTHONY. But we are emerging from this war with more complete records of the enlisted force than in any other war we have ever been in?

Gen. HARRIS. Oh, far more, and we are furnishing the information now that was not available 30 years after the close of the Civil War, and more complete information than was ever furnished in any war.

Mr. Sisson. Let us come back to the question of the field clerks. I want to find out where you need the field clerks. If you can replace field clerks with warrant officers in every regiment and division, etc., what are you going to have left for field clerks to do?

Gen. HARRIS. The field clerks are at headquarters of corps areas and departments.

Mr. Sisson. What do they do there?

Gen. HARRIS. They perform the same duty at corps area headquarters as the civilian clerks do in the War Department.

Mr. ANTHONY. They keep the records of the men?

Gen. HARRIS. Yes; and all the correspondence.

Mr. Sisson. When you get the warrant officers, will they duplicate that work?

Gen. HARRIS. They will do the work in the tactical units. The stationary headquarters, such as corps area headquarters, are not tactical units; they do not go into the field and they will have their own field clerks.

Mr. Sisson. You gentlemen have some curious ways of figuring things. If you increase the size of the Army you have to increase these things, and if you decrease the size of the Army it is a difficult matter to get you to decrease these other things.

Mr. ANTHONY. Was it not the original idea that a good many of these warrant officers assigned to your department were to displace these field clerks?

Gen. HARRIS. Yes, sir. We had 1,600 last year and now we have 1,200, and we are reducing the number of field clerks. We have field clerks now whose duties will be taken over by warrant officers, so that by the end of this year we will be down to the number authorized for the present fiscal year.

Mr. Sisson. If I were called upon to make an intelligent estimate as to just about how many field clerks you need here, I would be up a tree yet.

Gen. HARRIS. There are nine corps area headquarters and all the clerical work there is to be done by field clerks.

Mr. Sisson. Now, that does not mean anything to me, because I do not know how much work is to be done at a corps headquarters. I had an idea, until we had these hearings, that the amount of clerical force to take care of a certain unit of the Army would be dependent upon the size of the Army, but now I find that that is not an ex sequitur; it does not follow.

Gen. HARRIS. Not necessarily.

Mr. Sisson. Now, if it does not follow, is there any way in the world in which a committee could intelligently give you the number of employees of this kind that you need, unless we buy a pig in a sack and give you just what you want? You may be more accurate and just in your estimate than we could be, but still we ought to, if we can do it, arrive at the number of field clerks that are required. If I were called upon on the floor of the House, with the information that has gone into the record up to date, to justify the amount of work that they have to do, I would have to take what you say.

Gen. HARRIS. Now, take a corps area headquarters to-day. They all have more than 50.

NUMBER OF FIELD CLERKS BEFORE THE WAR.

Mr. ANTHONY. What did they use to have before the war at the headquarters?

Gen. HARRIS. We had 170 altogether, but there was a great number of enlisted men detailed to do the work that is now being done by field clerks.

Mr. ANTHONY. Have you anything there to show what the expenditure was for headquarters clerks and field clerks before the war, the year before the war?

Gen. HARRIS. It was 170, as I remember it. That is the number of field clerks.

Mr. ANTHONY. This shows a tremendous expansion in this grade of employment, does it not?

Gen. HARRIS. Yes; it does. It is due to the fact that our policy is to substitute the field clerks and prevent the necessity of employing enlisted men at these headquarters.

Mr. ANTHONY. What do enlisted men have to do unless you use them? Is it not a pretty good time to use them in time of peace in that way?

Gen. HARRIS. They are receiving instruction all the time.

Mr. ANTHONY. What better instruction can a man have than to act as a field clerk?

Gen. HARRIS. There are certain enlisted men who are doing that kind of work now.

Mr. ANTHONY. Why not organize a vocational training school at some headquarters and train some of these troops?

Mr. Sisson. You have got to have a great many of them when war breaks out, and you have got to take them from civil life. You are going to need field clerks when you have a war just like you need generals, and I am thoroughly in sympathy with the idea that you might develop some field clerks in time of peace. This is quite a considerable item here, the number of field clerks that you are asking for with their salaries at \$2,000.

Gen. HARRIS. There are only a few who get \$2,000.

Mr. Sisson. The lowest salary is how much?

Gen. HARRIS. \$1,200.

Mr. Sisson. Do they get their keep?

Gen. HARRIS. They get an allowance for quarters.

Mr. ANTHONY. Do they get subsistence?

Gen. HARRIS. No; except when they are in the field.

Mr. Sisson. They get just whatever it costs in some sort of mess system?

Mr. ANTHONY. In the field.

Gen. HARRIS. They have a commissary.

Mr. Sisson. It seems to me that you want to grow here along the line of extravagance, which does not mean efficiency.

Mr. ANTHONY. Well, it is apparent that there is an expansion from 170 before the war to 675 now.

Gen. HARRIS. Well, it is for Congress to decide whether we use enlisted men or civilians.

Mr. ANTHONY. Do you think it is practicable to use a number of enlisted men for this purpose?

Gen. HARRIS. It is practicable, but I, personally, do not think it is desirable. We have attempted to get away from it for many years. In the first place, the pay of an enlisted man is so very much less than the pay of the civilian clerks at these headquarters that they are never satisfied to work with them.

Mr. Sisson. If we get these enlisted men, and let the young men know that they can get places of this kind and fit themselves for

something besides being just a soldier—and I think the men ought to be fitted for a good many other things than just being a soldier—it looks to me like you would get a good many more men in the Army.

Gen. HARRIS. We are planning to dispense with field clerks altogether with tactical units.

Mr. Sisson. General, I think that is about the wisest statement that has been made to-day on field clerks. We will be glad to help you.

Gen. HARRIS. And these men that we are training in the Army, we are planning to have them take over all that work.

Mr. Sisson. I think, if you do that sort of thing and let young men know that when they go in the Army, in addition to getting that military training that is necessary, that they will do some clerical help, and when war breaks out they will get these places, we can say to them, "After you have had this training you do not necessarily have to go right back into the ranks again," it looks to me like it would facilitate getting the right sort of men to enlist in the Army.

Gen. HARRIS. There is one thing about that: A man is trained as a clerk and sent to duty up at corps area headquarters. He immediately begins his efforts to be discharged in order to be employed as a civilian.

Mr. Sisson. That is just the thing that I do not want to have done. You have enlisted men getting the pay of soldiers and the civilians getting \$2,000 a year working side by side. I do not blame the enlisted man for getting dissatisfied with the job.

Gen. HARRIS. That is the reason we try to have all the clerks at corps headquarters civilians.

FOREIGN-SERVICE PAY.

Mr. ANTHONY. The next item is for additional pay while on foreign service, \$7,072. What additional pay do these clerks get?

Gen. HARRIS. Ten per cent.

Mr. ANTHONY. And this would cover the pay of the clerks of the Army of occupation?

Gen. HARRIS. Yes; and in the Philippines, Hawaii, and Panama.

COMMUTATION OF QUARTERS, ETC.

Mr. ANTHONY. For commutation of quarters, heat, and light, you ask for how much?

Maj. MACKAY. The original estimate has been changed to \$267,869. That is on the reduced strength of 675. The preceding item is reduced to \$7,061.

Mr. ANTHONY. That is fixed by law?

Gen. HARRIS. Yes, sir.

FIELD CLERKS, QUARTERMASTER CORPS—COMMUTATION OF QUARTERS.

Mr. ANTHONY. For commutation of quarters, field clerks, Quartermaster Corps, you ask \$79,000 as against \$100,000 last year.

Maj. MACKAY. That is on the basis of 180 clerks.

Mr. ANTHONY. Is that on account of a reduction in the clerks, Quartermaster Corps, because their places were taken by warrant officers?

Gen. HARRIS. There are now in the service 185 field clerks, Quartermaster Corps. There were 200 authorized, up until the Act of June 4, when further appointments were prohibited. It is estimated that 180 will be on a commutation scale.

Mr. ANTHONY. And that is fixed by law?

Gen. HARRIS. Yes, sir.

WEDNESDAY, JANUARY 5, 1921.

STATEMENTS OF MAJ. GEN. P. C. HARRIS, THE ADJUTANT GENERAL, AND MAJ. JAMES MacKAY, OFFICE OF CHIEF OF FINANCE.

ARMY FIELD CLERKS' PAY.

(See p. 447.)

Gen. HARRIS. When I appeared before the committee on yesterday, having been hurriedly called, I did not have the data required to explain some of the details which I think the committee probably would like to have. As to the use made of the Army field clerks, it may be of interest to show the assignments to-day of the Army field clerks not engaged upon work connected with the demobilization of the Army.

There are now in Germany 64 field clerks at the headquarters of the American forces in Germany and 3 with military attachés in Europe. At the nine corps area headquarters there are 458 field clerks, an average of 51; at the department headquarters in Hawaii, the Philippines, and at Panama Canal there are 75, and in the Territorial districts there are 4 field clerks, 1 in each of four of the districts (3 on the Mexican border and 1 at Porto Rico).

Mr. ANTHONY. What do you call a territorial district?

Gen. HARRIS. On the Mexican border it is the section of the country along the border assigned to one commanding officer. One field clerk is at present assigned to each of three of these territorial districts, none being now assigned to the other two districts. There are five territorial districts. In the Coast Artillery district headquarters there are 12; in connection with the coast defenses there are 2, and with the divisions there are 10, all of whom will be replaced by warrant officers. At the various camps there are these field clerks: Camp Benning, 16; Camp Custer, 1; Camp Devens, 24; Camp Dix, 13; Camp Dodge, 3; Camp Eustis, 3; Camp Funston, 6; Camp Gordon, 10; Camp Grant, 9; Camp Humphreys, 2; Camp Jackson, 1; Camp Kearny, 1; Camp Knox, 5; Camp Lee, 11; Camp Lewis, 2; Camp Meade, 10; Camp Pike, 12; Camp Sherman, 6; Camp Taylor, 4; Camp Travis, 8; Camp Upton, 1; making a total of 153 at the camps.

Mr. ANTHONY. That is 153 field clerks?

Gen. HARRIS. Yes; at those different camps.

Mr. ANTHONY. What do they use them for at the camps?

Gen. HARRIS. They are simply clerks at the camp headquarters.

Mr. ANTHONY. They do clerical work?

Gen. HARRIS. They do clerical work.

Mr. ANTHONY. Where is Camp Taylor?

Gen. HARRIS. That is just outside of Louisville Ky.

Mr. ANTHONY. Is that still maintained as an active camp?

Gen. HARRIS. It is being abandoned. We have four Army field clerks there. That camp is in process of abandonment.

At the different posts there is the following number of field clerks: Fort Leavenworth Disciplinary Barracks, 3; Fort Sill, 5; at the Presidio, San Francisco, 3; Fort Monroe Coast Artillery Board, 1; Fort Monroe Coast Artillery training center, 9; making a total of 21 at the posts.

At the General Service School, Fort Leavenworth, there are 2 Army field clerks; 2 at the Field Artillery School, Camp Taylor; and 2 at the Cavalry School, Fort Riley; making a total of 6 at the Army service schools.

Mr. ANTHONY. Does that account for the total number of 675?

Gen. HARRIS. That accounts for more than that; that accounts for 808.

Mr. ANTHONY. Your statement shows the distribution of those Army field clerks?

Gen. HARRIS. That shows 808. My own personal opinion is that the field clerks should not be employed at the camps or the posts; that they should not be employed except at department and corps area headquarters and the service schools.

Mr. ANTHONY. How many would that eliminate?

Gen. HARRIS. That would reduce the number to 634.

Mr. ANTHONY. From what?

Gen. HARRIS. From 808. It reduces the number by 174.

Mr. SLEMP. What is the total amount?

Maj. MACKEY. The total pay of Army field clerks is \$1,190,200, that being the total pay for 675 field clerks and 100 messengers.

Mr. ANTHONY. Does that figure include commutation?

Maj. MACKEY. No, sir.

Mr. SLEMP. What does the amount of \$1,544,564 represent; does that include commutation?

Maj. MACKEY. That includes commutation.

REPLACING FIELD CLERKS WITH WARRANT OFFICERS.

Gen. HARRIS. We have recently assigned 20 warrant officers to each of the corps area headquarters, and they will take over part of the work now being done by field clerks. I am voicing my own personal opinion and not that of the War Department when I say I feel that the number of field clerks can be reduced if the committee will change the title and call them headquarters clerks and let it be understood that their status will be about the same as the clerks in the War Department. If that is done, I feel we can make a further reduction to 500.

Gen. LORD. Might I suggest in connection with that, that that would go contrary to the comptroller's decision and would probably deprive them of the allowances which are given to field clerks and which are not given to headquarters clerks. If you change the title, you will probably affect the decision of the Comptroller of the Treasury and you will probably jeopardize their allowances.

Gen. HARRIS. I do not think that ought to be done in the case of the older field clerks; those who have been in the service for 5 or 10 years should have the same allowances that they have now. Those who have been in the service less than five years, I feel, are not entitled to the same consideration as the older clerks, and I am very sure we can replace them, if this change is made, with women clerks.

Mr. ANTHONY. Would it not be better to leave the same designation as now exists and designate any new clerks as headquarters clerks?

Gen. HARRIS. That would be better.

Mr. SLEMP. What reduction of amount would that involve?

Gen. HARRIS. It would eventually eliminate commutation of quarters, heat, and light altogether.

Mr. SLEMP. When you say "eventually," when do you mean?

Gen. HARRIS. For all new appointees.

Mr. SLEMP. What effect would it have on next year's appropriation?

Gen. HARRIS. It would not have a very great effect on next year's appropriation if you allow all of those now appointed to draw these allowances. If you eliminate those who have had less than five years' service, you would eliminate all of those who were appointed during the war, and if you take commutation of quarters, heat, and light away from them and allow me to reappoint clerks and fill the places of those who resign—and a great many will resign—but if the designation of those clerks is changed so as to allow it to be understood that they belong to headquarters and are not available for any field duty, I can employ women clerks.

Mr. ANTHONY. Would it be possible to correct the situation by changing the designation to "Army field clerks and headquarters clerks"?

Gen. HARRIS. Yes.

Mr. ANTHONY. That would enable you to appoint a certain number to perform the duties of Army field clerks, and then these new ones you might appoint would be employed simply as headquarters clerks.

Gen. HARRIS. With the provision that headquarters clerks hereafter appointed would not be entitled to commutation.

Mr. SLEMP. I thought you said you could reduce the number of clerks from 625 to 500.

Gen. HARRIS. I think we can.

Mr. SLEMP. Does that mean for next year?

Gen. HARRIS. That can be done for next year.

Mr. SLEMP. Would not that involve a reduction of the amount here?

Gen. HARRIS. That would involve a reduction of the amount here.

Mr. SLEMP. How much?

Gen. HARRIS. I think it would mean a reduction in the proportion of 675 to 500.

Mr. SLEMP. You could reduce this estimate from an estimate for 675 field clerks down to an estimate for 500 field clerks, if you insert the language Mr. Anthony suggested.

Gen. HARRIS. Yes, sir.

Mr. ANTHONY. You say you do not think Army field clerks are necessary at the camps and posts. Would you replace them with enlisted men?

Gen. HARRIS. By warrant officers.

Mr. ANTHONY. There is no real economy in that, is there?

Gen. HARRIS. No; the warrant officer gets about the same pay.

Mr. ANTHONY. Would it not be more practicable to replace these Army field clerks at posts by enlisted men?

Gen. HARRIS. Some of them.

Mr. ANTHONY. It would be more practicable to replace them with enlisted men at the posts than it would at the corps-area headquarters?

Gen. HARRIS. I would have warrant officers in charge of all the offices at the camps, and their assistants would be enlisted men. So there would be some reduction, and not only would there be a reduction but I think it would be in the interest of efficiency. I am personally opposed to having any one not in the military establishment at a military post. I think it is injurious to the efficiency of the service.

Mr. SLEMP. Would this increase the number of warrant officers?

Gen. HARRIS. Not necessarily.

Mr. SLEMP. It would simply mean a different assignment for them?

Gen. HARRIS. It would simply mean a different assignment for them.

Mr. ANTHONY. Do you consider that the act of June 4, 1920, contemplates the elimination eventually of all the civilian clerks?

Gen. HARRIS. That would seem to be what was intended from the wording of the act.

Mr. ANTHONY. I remember several years ago it was stated that the policy of the War Department was to eliminate as far as possible all civilian employees and have the work pertaining to the Army done by men who had an enlisted status. During the war and since the war we seem to have gradually grown away from that, with the increase of the Army. Has the War Department abandoned that as a policy?

Gen. HARRIS. No; that grew out of the demobilization conditions. Enlisted men or inducted men were very impatient to be discharged, and a large number of men were required for clerical work at the camp headquarters.

Mr. ANTHONY. I suppose in time of war you considered it perfectly proper to replace fighting men with civilians, where that could be done?

Gen. HARRIS. That is true. I think it is now the policy of the War Department to replace civilians at all the posts by enlisted men. At the corps area headquarters the situation is almost identical with that in the War Department.

Mr. ANTHONY. I suppose there are some classes of work which can be performed more economically and efficiently by civilian labor, and the Department uses its own judgment in cases of that kind?

Gen. HARRIS. Yes.

Mr. SLEMP. Suppose this estimate for Army field clerks was not allowed, but we simply rested on your general desire to have nobody connected with the Army except those who are on a military status. What effect would that have on your organization and its efficiency?

Gen. HARRIS. First of all, it would throw a large number of men out of employment.

Mr. SLEMP. Only about 675.

Gen. HARRIS. Of that number there are two or three hundred very efficient old clerks, men who have been in the service 20, 30, or 40 years.

Mr. SLEMP. What do they do, just clerical work?

Gen. HARRIS. They do clerical work, but they have a certain amount of technical knowledge that a civilian clerk could not learn immediately. I think it would be very unfair to those men to discharge them when they have been in the service more than five years. So far as those who have been in the service less than five years are concerned, I do not think they have any claim for special consideration by Congress.

Mr. SLEMP. If this estimate were cut in two, then you could take care of the older men and let the other men get into some civilian employment, could you not?

Gen. HARRIS. It would result in an unfortunate situation. At the corps area headquarters you would have a part of the clerical force field clerks and a part of the clerical force enlisted men. If you cut this in half it will not leave enough clerks for corps area headquarters and they will have to call on enlisted men to help them, and then it will result in considerable dissatisfaction because the enlisted men will be doing the same work as the civilian clerks whose pay is three or four times as much as that of the enlisted men. I believe it would be unwise to make any reduction below 500. I have given that subject very careful consideration.

Mr. ANTHONY. Are there any other matters pertaining to your department that you would like to bring to our attention?

COMMUTATION OF QUARTERS, ETC., FOR HEADQUARTERS CLERKS.

Gen. HARRIS. In the interest of economy I believe it would be wise to add a provision as to the headquarters clerks, that they will not be entitled to commutation of quarters, heat, and light.

Mr. ANTHONY. They would not be under existing law, would they, if they are designated as headquarters clerks?

Gen. HARRIS. There is no law really for headquarters clerks now. There is nothing to tell what their pay is.

Mr. ANTHONY. It might be well to state that they should not be entitled to commutation.

Gen. HARRIS. I should say they should be entitled to the same pay as the Army field clerks, without commutation of quarters, heat, and light, and I do not think the present law would prevent the appointment of headquarters clerks.

STRENGTH OF ARMY—RECRUITING ACTIVITIES.

Mr. ANTHONY. Have you a statement in regard to the enlisted strength of the Army at this date, or at a recent date?

Gen. HARRIS. It is about 225,000.

Mr. ANTHONY. How many do you enlist in a day now?

Mr. HARRIS. In the month of December we enlisted in the vicinity of 25,000 men.

Mr. ANTHONY. Has there been any change in the orders that you have received in regard to enlistment since the committees have indicated to the War Department their desire that enlistments be curtailed?

Gen. HARRIS. The Secretary of War directed me to cease advertising in newspapers and to reduce other advertising as far as possible.

Mr. ANTHONY. You have not discontinued the receiving of enlistments?

Gen. HARRIS. No order has come to me directing me to discontinue enlistments.

Mr. ANTHONY. Are you enlisting all the men who present themselves and who fulfill the requirements?

Gen. HARRIS. Yes; no orders have been received to discontinue enlistments, but orders have been received to stop the expenditure of money for the publication of advertisements.

Mr. ANTHONY. Is it not a fact that within the last two weeks you have made renewed efforts for enlistments?

Gen. HARRIS. No; that is not true.

Mr. ANTHONY. Is it not true that orders were published by The Adjutant General or sent out to the different corps area headquarters or to the different recruiting officers within the last 10 days which asked for renewed efforts to recruit certain organizations? Such orders have been called to my attention within the last 10 days.

Gen. HARRIS. Certain organizations?

Mr. ANTHONY. That is, certain of the divisions.

Gen. HARRIS. That is not really a renewed effort to secure recruits. It is an effort to make the recruits enlist for certain organizations.

Mr. ANTHONY. I think Camp Jackson, S. C., was supposed to be one place mentioned in these orders.

Gen. HARRIS. The Secretary of War decided that we would first enlist the Second Division to its authorized strength, and when that was accomplished we made an effort to divert the recruits to Camp Jackson, to the division there. That is not a renewed effort to secure recruits, but we have been enlisting them for that particular division, so as to have one division at a time filled up.

Mr. ANTHONY. When I passed through Chicago last week I noticed a poster in front of the recruiting headquarters there which read something like this: "Why not spend your winter in the South? Why not hunt and fish in the balmy Southland sunshine and revel in the streams of the Southland?" That is a new poster, is it not?

Gen. HARRIS. It is comparatively new, but the preparation of that poster was started some time ago.

Mr. ANTHONY. But it has just been put out recently, has it not?

Gen. HARRIS. I should say within the last month. That was put out at the time we began our effort to divert recruits to Camp Jackson.

Mr. ANTHONY. Do you think that was a proper advertisement for the War Department to put out to induce recruits to enlist? Does it not give a rather false idea to the green recruits? Does that not give them the idea that they are to look forward to a life of ease and sport in the Southland, and will they not be liable to receive a few rude shocks after they enlist?

Gen. HARRIS. I hardly think so. In order to divert the recruits to a particular locality of course we have to advertise the advantages of that particular locality.

Mr. SLEMP. General, do you get recruits in that way for a specific division?

Gen. HARRIS. Yes. We allow a man to select his own organization.

Mr. SLEMP. Do you advertise, for instance, that you want to fill up the First Division?

Gen. HARRIS. Yes; we give them a preference. First we gave them a preference for the Second Division at San Antonio, and then we shifted our efforts to the Fifth Division at Camp Jackson, S. C., and that was the reason for that particular line of advertising. Those posters were really prepared in the divisions themselves and they furnished the data to the War Department and we prepared them.

Mr. ANTHONY. Can you not furnish us with copies of all the posters that have been used within the last 60 days?

Gen. HARRIS. Yes.

Mr. ANTHONY. I wish you would send copies of those posters to us.

Gen. HARRIS. It would be quite a display of posters.

Mr. ANTHONY. How many would there be? We just want a few striking examples, particularly that one I referred to in reference to hunting and fishing, and any other hunting and fishing posters you may have.

Gen. HARRIS. That particular poster was prepared by the Fifth Division.

Mr. SLEMP. It might involve a summer in the Rockies, with golf grounds, etc.

Gen. HARRIS. If we were trying to fill up a division in that particular section we might have something of that kind on those posters.

Mr. ANTHONY. Are all the men serving in the Philippines now serving there at their own volition?

Gen. HARRIS. Every man is serving at his own volition; yes, sir. They enlist for foreign service.

Mr. ANTHONY. So, a man will not be sent to the Philippines against his will?

Gen. HARRIS. No; he will not be sent to the Philippines against his will.

Mr. SLEMP. Do these enlistments carry the \$90 bonus?

Gen. HARRIS. If they enlist for three years.

Mr. SLEMP. Is that a provision of law?

Gen. HARRIS. That is a provision of law. If a man enlists for one year he receives no bonus. But if he enlists for three years he gets the \$90 bonus, and about 60 per cent of the enlistments receive the bonus. That takes the place of the old reenlistment pay.

Mr. SLEMP. The only point was whether or not it is optional to pay them that bonus?

Gen. HARRIS. No; it is not. We encourage the 3-year enlistments.

Mr. ANTHONY. Then, as I understand it, it is the purpose of the War Department and of The Adjutant General's Department to continue recruiting the Army up to the maximum authorized by law?

Gen. HARRIS. I have received no orders to the contrary. The only orders I have received are to reduce the expenditures for advertising purposes and to absolutely discontinue advertising in newspapers, which has been done.

Mr. SLEMP. Has that had any noticeable effect on enlistments?

Gen. HARRIS. There has hardly been time to see what the effect is. My own opinion is that the recruits will come in without much additional advertising, at the rate we are getting them now.

Mr. SLEMP. What percentage of your enlistments now are by men who were members of the American Expeditionary Force? Are you getting most of your recruits from among those men?

Gen. HARRIS. I should say, roughly, 50 per cent of the men now enlisting have had prior service, and a large majority of them would be American Expeditionary Force men.

Mr. ANTHONY. You are giving every recruit the bonus of \$90?

Gen. HARRIS. If he enlists for three years.

Mr. ANTHONY. Do you think that is necessary in order to obtain recruits at the present time?

Gen. HARRIS. We have always had what used to be called reenlistment pay.

Mr. ANTHONY. Do you think it is necessary for the new enlistments?

Gen. HARRIS. If we remove the bonus and allow an option of one or three years, no one would enlist for three years, and my opinion is that it is very much better for the Army to have that.

Mr. ANTHONY. Do you not believe that under present conditions of unemployment in the country and considering the attractive service in the Army that we can get all the recruits we need without offering the \$90 bonus for the first enlistment for three years?

Gen. HARRIS. If we discontinue the 1-year enlistment, I do.

Mr. ANTHONY. What is your own opinion in regard to the 1-year enlistment and the way in which it has worked? Do you think it is a practical thing?

Gen. HARRIS. I think it is better for the efficiency of the Army to have the 3-year enlistment. The 1-year man does not make an efficient soldier.

Mr. ANTHONY. The testimony we have had from officers in the technical corps of the Army is to the effect that the one-year man in certain branches of the service is of no real value. Is that correct?

Gen. HARRIS. That is true.

Mr. ANTHONY. The only value of the one-year recruit would be to the combat branches of the Army.

Gen. HARRIS. Even there he does not get sufficient training in one year for the work in the combat branches.

Mr. ANTHONY. So the only value of the one-year enlistment is that out of it you possibly get a three-year man?

Gen. HARRIS. His training is valuable, of course, in case he enlists or is inducted in time of war. In that case he would be much more valuable than an untrained man. My own opinion is that if you desire to restrict recruiting you should refuse entirely the one-year enlistments.

Mr. ANTHONY. Has the educational program of the Army been an inducement to enlistment?

Gen. HARRIS. There is no question about it. I think it has been far more of an inducement than the industrial situation to-day. It is a very significant fact that during the last month, when we received 25,000 enlistments, a large proportion of those were from the country

districts or from the smaller towns. The enlistments in Chicago and New York last month were smaller than in the previous month. So it is a mistaken idea to assume that our increase in enlistments is due entirely to the industrial situation. We are reaching the people, we are reaching the homes of the people of the country and they are taking an interest in the Army, and that is due to our advertising and our vocational training which we are offering. I should say that fully 50 per cent of it is due to that.

Mr. ANTHONY. Who places the advertising for recruits in your department?

Gen. HARRIS. It is submitted to and approved by the Secretary of War.

Mr. ANTHONY. Is it placed through a professional advertising agency or is it placed by Army officers?

Gen. HARRIS. We called in consultation the professional agencies and they have made recommendations to us.

Mr. ANTHONY. Do they receive commissions on the sums expended?

Gen. HARRIS. The first advertising was placed, not through an agency but an association, as I remember it now, and the advice they have given us since that time has not been paid for. I find, on looking into the matter further, that all of our newspaper advertising has been placed through regular agencies, from which the War Department receives special rates.

Mr. ANTHONY. Will you put in the record a statement showing the amount that has been expended for advertising purposes?

Gen. HARRIS. Newspaper and periodical advertising?

Mr. ANTHONY. For newspaper and periodical advertising during the present year.

Gen. HARRIS. Yes, sir.

Mr. ANTHONY. How much are you asking for for that purpose for the next year; what appropriation do you get that from?

Gen. HARRIS. It comes from the appropriation for the Quartermaster Corps.

Gen. LORD. It is included in the Quartermaster General's estimate for incidental expenses. The Quartermaster General gets his figures on that from The Adjutant General.

Gen. HARRIS. I will put that in the record.

Mr. ANTHONY. I wish you would show what has been expended this year for newspaper and periodical advertising and what it is proposed to expend next year for that purpose in your department. (The statement referred to is as follows:)

Expenditures for newspaper advertising in connection with recruiting activities.

Amount expended during the current fiscal year.....	\$250,000
Estimate submitted for the fiscal year ending June 30, 1922.....	500,000

The campaign for recruits during the current fiscal year has proved so successful that the amount of \$500,000 estimated as needed for the next fiscal year will not be required and may be omitted.

Mr. Sisson. What does your poster advertising cost in proportion to your newspaper and periodical advertising? Which is the more expensive, the newspaper and periodical advertising or the poster advertising?

Gen. HARRIS. Prior to this year we have done very little advertising in newspapers and periodicals—practically none. But this

year we were persuaded that was the best method of advertising, and the results seem to indicate it is true. I know that the Navy has for some years advertised quite extensively in the newspapers, but the Army has depended very largely, until the last fiscal year, upon posters. The expenditures for posters during the current fiscal year amount to \$18,800 to date.

Mr. Sisson. Of course, in business you keep an account of advertising and also an account of the business you get from advertising, and a business man advertises to just such an extent as he finds it pays him to advertise.

Gen. HARRIS. We study that proposition.

Mr. Sisson. A business man regulates the volume of his advertising by the returns he gets from it, but in the case of advertising by the Government there is practically no limit to the amount of money you might expend for advertising except the limit of the appropriation.

Gen. HARRIS. We have studied that subject very carefully. We have studied the result of our first newspaper advertising, and as a result of that an additional allotment was made. I think we have spent probably \$600,000 on advertising since enlisting was resumed in the early part of 1919, or during the last three fiscal years.

Mr. Sisson. I want to go back to the 1-year enlistment for a moment. How many 1-year men reenlist for three years, or for another one year?

Gen. HARRIS. I do not know that I can give you those figures except to say that there are more than 50 per cent of the men enlisted to-day who have had prior service.

Mr. Sisson. What I was curious to know is this: Suppose a man has had 12 months' experience. That will determine whether he likes the life or not. If it happens to be an attractive life to him he would probably reenlist. If it is not attractive and he wanted to get out he would be glad when the one year was over. I was wondering what sort of attraction there is in the Army life that might induce a young man who enlisted for one year to reenlist.

Gen. HARRIS. A large percentage of them now do reenlist.

Mr. Sisson. If you have the one-year enlistment and the young man is pleased with the Army life, and he has an opportunity to take 12 months to determine whether he wants to reenlist for three years, you might get better results than if you had nothing but the three-year enlistment.

Gen. HARRIS. Of course that is one advantage of the one-year enlistment.

Mr. ANTHONY. Will you also put in the record a statement of the number of enlistments during the present year, beginning with January, 1920.

Gen. HARRIS. Yes, sir.

Mr. ANTHONY. So that we can have some intelligent idea as to how enlistment has progressed, showing the number of one-year men and the number of three-year men?

Gen. HARRIS. Yes, sir.

Mr. ANTHONY. The House would also like to know the rates of pay for the different enlisted grades, and I would also like to have that in the record.

Gen. HARRIS. Yes, sir.

(The statements referred to are as follows:)

Enlistments by months during the calendar year 1920.

Month.	1-year enlistments.	3-year enlistments.	Total.
January.....	3,398	6,318	9,716
February.....	1,664	7,335	8,999
March.....	4,186	6,284	10,470
April.....	3,451	3,931	7,382
May.....	4,033	3,997	8,030
June.....	4,595	6,526	11,121
July.....	6,196	8,787	14,983
August.....	6,449	10,432	16,881
September.....	5,085	9,087	14,172
October.....	5,188	10,842	16,030
November ¹	7,486	12,957	20,443
December ¹	8,315	14,997	23,312
Total.....	60,046	101,493	161,539
Philippine Scouts.....	71	463	534
Aggregate.....	60,117	101,956	162,073

¹ Figures for November and December are subject to correction upon the receipt of complete reports.

Total monthly pay of the seven grades of enlisted men under the act of Congress approved June 4, 1920.

Grade.	Base pay.	20 per cent increase (temporary).	Rations at 63 cents (fiscal year 1921).	Total
Master sergeant.....	\$74.00	\$14.80	\$15.90	\$104.70
Technical sergeant.....	53.00	10.60	15.90	79.50
First sergeant.....	53.00	10.60	15.90	79.50
Staff sergeant.....	45.00	9.00	15.90	69.90
Sergeant.....	45.00	9.00	.....	54.00
Corporal.....	37.00	7.40	.....	44.40
Private (first class).....	35.00	.....	.....	35.00
Private.....	30.00	.....	.....	30.00

COST OF MAINTENANCE PER ENLISTED MAN.

Mr. ANTHONY. What does it cost the Government to maintain an enlisted man for a year, on an average?

Gen. HARRIS. I think Gen. Lord can answer that better than I can.

Gen. LORD. In the early part of the hearing a request was made that there be inserted in the record a statement showing what the pay was and how it would appeal to recruits as compared with what their chances were outside, and that has already been prepared.

Mr. ANTHONY. We asked for the value of an enlisted man's pay and allowances.

Gen. LORD. What it would make in amount.

Mr. Sisson. I do not recollect whether you put in the record the overhead charge cost of enlistment. You did put into the record, as I

recall, the advantages, taking into consideration the soldier's clothing and his keep, his medical care and his pay. In order to completely answer the chairman's question I would like to know, and I feel sure the House would like to know what the overhead charge is against each enlistment?

Gen. LORD. You want to know the per capita cost of a soldier?

Mr. ANTHONY. We use to figure it at about \$1,000 before the war. and then that went up to \$2,000, I believe.

Gen. LORD. During the war it went up to as high as \$13,000.

Mr. ANTHONY. Will you tell us what it is to-day?

Gen. LORD. We will insert the figures in the record.

Total support of the Army, excluding National Guard, Reserve Corps, and civilian military training.

1	2	3	4=3+2	5	6=5+2	7	8=7+2
Fiscal year.	Average enlisted strength.	Original estimate (as printed in the Book of Estimates).		Appropriations.		Expenditures.	
		Total.	Per capita.	Total.	Per capita.	Total.	Per capita.
1909.....	79,920	\$88,205,833.75	\$1,103.68	\$98,296,084.73	\$1,229.93	\$95,201,300.50	\$1,191.21
1910.....	80,144	103,413,152.55	1,290.34	101,593,712.51	1,267.64	96,458,356.87	1,203.56
1911.....	76,902	93,449,067.55	1,215.17	95,512,808.88	1,242.01	98,575,810.76	1,216.82
1912.....	82,490	91,686,031.73	1,111.48	93,973,049.38	1,139.21	90,242,676.62	1,093.98
1913.....	86,636	92,446,238.98	1,067.07	92,408,272.25	1,066.63	91,488,234.28	1,056.01
1914.....	90,077	92,947,631.13	1,031.87	99,074,601.65	1,099.89	97,697,837.38	1,084.60
1915.....	98,571	98,093,508.65	995.16	98,789,361.86	1,002.22	97,072,672.04	984.80
1916.....	100,185	98,684,511.99	985.02	106,491,281.47	1,062.95	106,835,234.54	1,066.38
1917.....	135,709	145,131,483.47	1,069.43	2,034,620,788.05	14,992.53	1,854,711,641.58	13,666.83
1918.....	1,280,725	242,221,361.22	189.13	5,019,639,526.65	3,919.37	4,157,659,499.73	3,246.33
1919.....	2,376,101	6,591,338,198.15	2,774.01	12,257,140,610.17	5,158.51	5,859,444,581.62	2,465.99
1920.....	268,222	1,915,138,871.86	7,140.13	759,736,093.17	2,832.49	728,512,056.60	2,716.08
1921.....	.....	896,691,820.00	.....	364,307,865.00	.....	.....	.....

NOTE.—The unobligated balances of certain appropriations made in the fiscal year 1915 were available for use during the following fiscal year, so that the expenditures in the fiscal year 1916 slightly exceeded the appropriations made during that year, as shown in above table.

Mr. ANTHONY. I believe before the war it used to be about \$1,100, and recently it has been as high as \$2,700. How do you account for the difference in cost between \$1,100 and \$2,700?

Gen. LORD. It is accounted for in the increased cost of supplies and services, by the inheritance of many tasks that came over from the war which involve expenses that are not dependent upon the number of personnel, and then also because we have developed and have taken over additional activities that are continuing activities, and that adds to the overhead and is not materially affected by the number of personnel.

Mr. Sisson. You might elaborate a little on that in order to set forth as clearly as possible the items of cost.

Mr. ANTHONY. Have you ever figured out whether it is going to cost more to maintain the new organization in corps areas than it formerly cost to maintain the Army at the old post? It is going to cost more money than before, is it not?

Gen. LORD. It makes some addition to the overhead. It gives us additional departments. What takes place is that certain former departments corresponding to a territorial department give us addi-

tional headquarters, and that necessarily increases the cost of the overhead. If you make new activities your overhead increases correspondingly.

Mr. ANTHONY. What is the expense of caring for the Army in these large camps we inherited from the war as compared with maintaining the Army at the old posts?

Gen. LORD. I do not know what that is, exactly. It naturally results in additional expenses because you are maintaining the old posts also.

Gen. HARRIS. There is one more remark I would like to make about the Army field clerk. I stated that we require 50 Army field clerks for these corps area headquarters. It may be of interest to know that there are 20 officers at these headquarters for whom these field clerks do clerical work. There are 13 officers on the General Staff, 3 adjutants, 2 inspectors, and 2 judge advocates, making a total of 20. That makes an average of two and one-half clerks to an officer, although the clerks are not assigned to any individual officer.

Mr. Sisson. Do they really need that many?

Gen. HARRIS. I have written numerous letters lately to corps area commanders and asked them to reduce the number of their clerks, and sometimes I have arbitrarily reduced them, and they insist upon it that they can not do the work expected of them with less than 50 of these clerks: that they regard that number as the minimum.

Mr. Sisson. Of course, it is a natural thing not to want to cut down clerical assistance.

Gen. HARRIS. I realize that.

Mr. Sisson. You are dealing with the human element always in dealing with the amount of help you give one man, and I think you are exactly right in many instances in arbitrarily taking them away, because that is the only way you are going to get anywhere.

Gen. HARRIS. We have reduced them 50 per cent during the last year.

TUESDAY, JANUARY 4, 1921.

STATEMENT OF COL. T. B. RIVERS.

INCREASE IN SALARY OF EXPERT ACCOUNTANT.

Col. RIVERS. This is on page 34 of the bill, line 18. The Inspector General asked for an increase "for pay of expert accountant in the Inspector General's office, \$3,500," from \$2,500.

Mr. ANTHONY. Col. Rivers, will you tell us the necessity for that?

Col. RIVERS. That is in order to make the pay commensurate with the duties that he performs, to give him an increase that everybody else has gotten. This pay was established 30 years ago—in 1890—and there has been no increase since that date. The Army has been enlarged, of course, since that date, and his duties have been amplified very much, and he ought to have, certainly, some commensurate increase in accordance with the duties he is performing and commensurate with the large increase that everybody in commercial life has had since 30 years ago.

Mr. ANTHONY. You have just this one expert accountant?

Col. RIVERS. Yes.

Mr. ANTHONY. What pay do the other expert accountants in the other departments of the War Department get?

Col. RIVERS. The only one that I know of in the War Department is in Gen. Lord's office. What does he get?

Gen. LORD. He is anything but an expert accountant. He does not do any accounting at all. We have an expert accountant in charge of our Red Cross accounts. He gets \$3,600.

Col. RIVERS. In the Internal Revenue Division I believe they get \$4,500.

Mr. ANTHONY. Do they have any expert accountants in the Bureau of Efficiency?

Gen. LORD. Yes; I think so.

Col. RIVERS. As a matter of fact, I think our man is the only man in the War Department that is graded in the statute as an expert accountant.

Gen. LORD. I think that is true.

Col. RIVERS. We had a man clerk recently, some year and a half ago, who went with the Internal Revenue Bureau at \$3,000. This man's duties are important. He helps to inspect the accounts of all branches of the service; he is an expert; he audits the accounts of the soldiers' homes, and passes on all financial questions that pass through our office; knows the situation of the legislation that authorizes the expenditure of money, and questions of that kind. He has been in the service 15 years and he has had no increase in pay during this time. In fact, this position has had no increase since it was established in 1890. I think it is very necessary that he have additional pay.

Mr. ANTHONY. We will be glad to give that consideration.

Col. RIVERS. I have another alternative proposition to submit if the Congress or committee think it is wiser to give him the pay of a captain of finance and the allowances. That would make his pay a little more than what we are asking for—the straight \$3,500. He is an excellent man. He has not asked for any increase particularly. Of course, like everyone else, he is a sufferer from the increased cost of living, but the main fact is that the man is excellent, his duties are very important, and there has been no increase in his salary since the office was established 30 years ago, and I hope the committee will be able to view it in that light.

Mr. ANTHONY. All right, Colonel, we will give it consideration.

TUESDAY, JANUARY 4, 1921.

STATEMENT OF MAJ. GEN. WILLIAM J. SNOW, CHIEF OF FIELD ARTILLERY.

ADDITIONAL PAY TO MOUNTED FIELD ARTILLERY OFFICERS.

Mr. ANTHONY. Gen. Snow, you desire to be heard on one specific item.

Gen. SNOW. Yes, sir; that is in reference to the proviso on page 36:

Provided, That all officers of Field Artillery on the active list shall be required to be mounted within the meaning of this paragraph.

Mr. ANTHONY. I understand you are motorizing a number of your Field Artillery regiments?

Gen. SNOW. Yes, sir.

Mr. ANTHONY. Does that do away with the necessity of having the field officers mounted?

Gen. SNOW. The field officers are still to be mounted in any case. This does not affect them.

Mr. ANTHONY. What about the captains and other company officers?

Gen. SNOW. They are not mounted while they are on duty with the motorized regiment, but they are liable to be transferred away at any time to a horse regiment when they are again mounted. As you know, all Field Artillery officers were mounted up to the time the war began. During the latter part of the war we had a good deal of trouble in getting horses, and we motorized some of the regiments. Then after the armistice we continued to motorize those regiments, and also some of the light-artillery regiments in an experimental way to see whether we could get rid of the horses.

The Army regulations provide that all Field Artillery officers shall be mounted, but the Comptroller of the Treasury has decided that as soon as captains and lieutenants are assigned to one of the motorized regiments they cease to be mounted officers. We have been trying to encourage the breeding and ownership of good horses. Last year Congress appropriated \$250,000 for that purpose, and it is that very class of horses that we are trying to encourage the ownership of by Field Artillery officers, but they do not want to buy horses, because the moment the officers are transferred from a horse regiment to a motorized regiment the comptroller has decided that they cease to be mounted officers and the Government will not take care of their horses; the officers do not receive the mounted officer's pay and the Government will not forage or ship these horses, and consequently the owners must dispose of them.

Mr. ANTHONY. Your recommendation is that notwithstanding the fact that a Field Artillery man goes to a motorized regiment he should still receive that mounted pay and be permitted to have his mount?

Gen. SNOW. Yes, sir.

Mr. ANTHONY. That mount will not be in active use, will it?

Gen. SNOW. Those horses are used considerably, not at drills but the officers are required to keep up their equitation and their training and they do use horses while they are on duty with mounted regiments. But they will not own them; they get Government horses instead. Practically all the officers who are on duty with motorized regiments use Government horses.

Mr. ANTHONY. The effect of this provision will be to continue mounted pay to officers on duty in motorized regiments?

Gen. SNOW. Yes; but the ultimate object is not to increase the pay because it really costs the officer more than that for the care of his horse and upkeep of his equipment.

Mr. ANTHONY. How much is the mounted pay?

Gen. SNOW. It is \$150 a year for one horse.

Mr. ANTHONY. Irrespective of the officer's rank?

Gen. SNOW. This only applies to captains and lieutenants. The field officers are mounted anyway. It amounts to \$150 a year for one horse and \$200 for two horses.

Mr. Sisson. What does it cost to keep a horse?

Gen. SNOW. The cost varies a good deal. The last figures I saw of the Remount Service gave the cost of the maintenance of the horse from 39 cents to one dollar and something per day.

Mr. Sisson. What does the keep of the horse include; just his feed?

Gen. SNOW. It includes his hay and grain and straw for bedding.

Mr. Sisson. His feed and stabling and currying?

Gen. SNOW. No; where an officer owns his horse he pays a soldier to do the currying. That is where the mounted pay goes, really.

CONSOLIDATION OF ARTILLERY SCHOOLS.

Mr. ANTHONY. General, in previous hearings a suggestion was made by some member of the committee that possibly it might be wise to combine the three artillery schools being maintained into one school or possibly two schools. Has that proposition ever come before you?

Gen. SNOW. It has not come before me, but we have considered it at different times.

Mr. ANTHONY. What are your views on it?

Gen. SNOW. We can not combine them unless we get a considerable appropriation to put in a plant at one place. We maintain those schools at three places because there is a plant at each of those places and the schools are at the places because the large areas are there and the buildings are there. We do not maintain the three places simply to have the schools there.

Mr. ANTHONY. Is it a fact that the number of artillery officers you want to train is so large that it will be necessary for you to have these three plants?

Gen. SNOW. Unless we have a very large appropriation to put in a plant at some one place it will necessitate the use of these three schools. Of course, the artillery is a long-range weapon, and under any conditions we need these three firing fields for the training of field artillery troops—the Regular Army, the National Guard, and Reserve.

Mr. ANTHONY. Naming them in their order, which do you consider the most important of the three firing fields to the Artillery Service, the fields at Camp Bragg, Camp Knox, and Fort Sill?

Gen. SNOW. The best field is at Camp Bragg.

Mr. ANTHONY. That is the largest?

Gen. SNOW. That is the largest; yes, sir. The best plant in school buildings alone is at Fort Sill. But there is no plant large enough now to run along in time of peace with the officers at any one of those places. During the war, of course, we could do it, because we put everybody in barracks. In fact we had several brigadier generals in barracks at one time, just like enlisted men.

FIELD ARTILLERY.

Mr. ANTHONY. The Army is pretty well equipped now with field artillery, is it not?

Gen. SNOW. Better than ever in my lifetime.

Mr. ANTHONY. You practically have all the field artillery you think there is any necessity for?

Gen. SNOW. We have all the guns on hand; yes, sir; but I do not want to convey the impression that we ought not to develop better ones. I think the process of experimentation and development must go on continuously, just as it goes on in other countries.

EXPERIMENTAL AND DEVELOPMENT WORK.

Mr. ANTHONY. Has there been anything new developed in field artillery since the war?

Gen. SNOW. Yes; there have been improvements in some of the guns.

Mr. ANTHONY. Of what class?

Gen. SNOW. Of all classes—75-millimeter guns, 105-millimeter howitzers, 155-millimeter howitzers, 155-G. P. F. guns, 4.7-inch guns, and 8-inch howitzers.

Mr. ANTHONY. In what respect are these proposed guns an improvement over those used during the war?

Gen. SNOW. Principally in range. The principal weapon in the war was the 75-millimeter gun. This started out with a range of between 7,000 and 8,000 yards. By various improvements during the war they got it up to about 10,000 yards.

Mr. ANTHONY. That is improvement in the gun or the ammunition?

Gen. SNOW. Principally in the ammunition. Now, the heart of the enemy was found to be about 12,000 yards behind the line. We are now developing the 75-millimeter gun with a range of 15,000 yards. This is principally due to improvement in the gun and carriage.

Also, as we had some evidence this morning, this air business is developing very rapidly, so this 75-millimeter gun with a range of 15,000 yards we are developing to shoot up in the air with an 80° elevation, whereas we could formerly only get about 82°, which was enough for good firing on the land.

Mr. ANTHONY. What is the range of the gun at 80° elevation?

Gen. SNOW. We expect to get at least 15,000 maximum range. We will get about 10,000 yards in the air with the gun which will give 15,000 on land.

Mr. ANTHONY. Will a projectile go as far firing it in the air at an angle of 80°?

Gen. SNOW. No; the maximum range is at 54° and some minutes elevation. We will get pretty nearly 15,000 yards at that elevation. I will be very glad to show those models to the committee. They are very interesting.

Mr. ANTHONY. I do not remember whether we asked to have put into the record a statement of the field guns that you have on hand in process of completion.

Gen. SNOW. I can put that statement in.

Table of guns available for Field Artillery use (complete with mounts).

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CONTRACTS MADE DURING WAR.

Mr. ANTHONY. Are all of the contracts completed which were made during the war?

Gen. SNOW. Yes, sir.

Mr. ANTHONY. You got deliveries on all of them?

Gen. SNOW. None are being delivered now.

Mr. ANTHONY. That represents a maximum of guns on hand?

Gen. SNOW. Yes.

Mr. ANTHONY. Is that in addition to the field artillery that you had on hand before the war, or does it include the old 3-inch guns?

Gen. SNOW. No; it does not include those, but there were only 636 of the 3-inch guns.

Mr. ANTHONY. They are still effective?

Gen. SNOW. Yes, sir.

Mr. ANTHONY. You are maintaining them?

Gen. SNOW. We are keeping them, but largely as reveille guns, and we also use them with the Reserve Officers Training Corps units, as at Yale and Harvard Colleges, because that is the only gun with which we have complete drill regulations. As soon as we can complete drill regulations with the 75 millimeter guns we will substitute those. We are also keeping these 3-inch guns with the universities because we have some ammunition on hand and we want to shoot it up. We are not making that any more.

Mr. ANTHONY. How about your supply of ammunition?

Gen. SNOW. We have a sufficient supply of ammunition on hand, I think. It depends upon its keeping qualities. We are assuming that it will keep 10 years. If it does we have enough.

Mr. ANTHONY. Enough for any possible emergency?

Gen. SNOW. Enough not to justify the manufacture of any more at present for the guns on hand. We want some money, Mr. Anthony, for experimental developments in ammunition. We think we are getting a better projectile now than we had before and a better range.

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Gen. LORD. May I return to the proposed amendment to the provision for allowances for mounted officers? The law is found in the act of May 11, 1908, and reads as follows:

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Paragraph 1272, Army Regulations, designates what officers are to be considered mounted officers, and included in that provision are officers of the Field Artillery. The Comptroller of the Treasury, as Gen. Snow has stated, in a decision of June 15, 1918, decided as follows:

An officer of the Army, member of a mounted organization, loses his right to the additional pay for owning an authorized private mount, as well as the right to have such mount maintained or shipped at public expense, from the day the organization of which he is a member became motorized.

Now, this amendment to the law is asked in order to meet this decision. There is no law that designates what officers are to be mounted, and if an amendment of this sort is included in the bill, it will be the first declaration of Congress on the subject of who will constitute our mounted officers. The wording proposed in the book of estimates, seems to me, to be faulty, inasmuch as the comptroller might decide that only officers of the Field Artillery are mounted officers. I wish to submit in lieu of the amendment printed in the bill the following:

Provided, That the Secretary of War shall determine what officers are required to be mounted within the meaning of the law authorizing the furnishing of mounts and horse equipments and the payment of additional pay to officers who furnish suitable mounts at their own expense.

Mr. ANTHONY. Would that not tend to enlarge the number of mounted officers?

Gen. LORD. The Secretary of War decides it now. It is a matter of statutory regulation.

Mr. Chairman, Col. Rivers is here for one minor item in this bill.

Mr. ANTHONY. All right, proceed.

WEDNESDAY, JANUARY 5, 1921.

**STATEMENTS OF BRIG. GEN. H. M. LORD, CHIEF OF FINANCE,
AND MAJ. JAMES MacKAY, OFFICE OF THE CHIEF OF FINANCE.**

**ADDITIONAL PAY FOR OFFICER IN CHARGE OF PUBLIC BUILDINGS AND
GROUNDS, WASHINGTON, D. C.**

Mr. ANTHONY. The next item is a new item, "For additional pay for officer in charge of public buildings and grounds at Washington, D. C.," for which you are asking \$760. What is the reason for that new language?

Gen. LORD. I would like to say in connection with that item that the act of March 7, 1873, provided that the officer in charge of public buildings and grounds in Washington should receive the rank, pay, and allowances of a colonel. The reorganization act in section 127 (a) provides that "hereafter no detail rating or assignment of an officer shall carry advanced rank, except as otherwise specially provided herein." The comptroller decided under that provision that while the officer in charge of public buildings and grounds could not have the rank, the act of 1873 gave him the pay and allowances. Even with that decision, however, I do not think that this phraseology is necessary, and I think it could be safely eliminated because he could be paid under the appropriation for pay of officers.

Mr. ANTHONY. If we eliminate the new language he will not get the increased rank, but he will get the increased pay and allowances?

Gen. LORD. Yes, sir.

Mr. ANTHONY. As a matter of fact, practically every officer in the Army has received increased rank during the present year, has he not?

Gen. LORD. Yes, sir; but this increase is not allied with that. This is a special place provided for under a special provision of law.

Mr. ANTHONY. As I remember it, these provisions for increased rank had to be made because of the fact that a great many officers in the old Army were eligible for certain places but they did not have enough rank, and the idea was to give them rank fitting the places. Nobody questions the officer's eligibility for the rank.

Gen. LORD. That is right.

Mr. ANTHONY. You think he ought to continue to receive the increased pay and allowances?

Gen. LORD. That is provided for in the law, in the act of 1873.

Maj. MACKAY. The present officer in this instance is a major and the amount asked for in this item, \$760, is the difference between the pay of a major and the pay of a colonel.

MILEAGE.

Mr. ANTHONY. The next item is "For mileage to commissioned officers, warrant officers, members of the Officers' Reserve Corps when ordered to active duty, contract surgeons, expert accountant, Inspector General's Department, Army field clerks, and field clerks of the Quartermaster Corps, when authorized by law." The amount asked for is \$3,000,000. You had \$3,000,000 for the same item in the current law.

Maj. MACKAY. Yes, sir.

Mr. ANTHONY. Does that embrace all mileage for commissioned officers?

Gen. LORD. It does not, Mr. Chairman. Engineer officers draw mileage payable from the appropriation for the work on which they are engaged if it is river and harbor work. The members of the Air Service draw mileage from the Air Service appropriation when they are traveling on work in connection with aviation projects. The same thing applies to the Ordnance Department when Ordnance officers are traveling on business connected with some Ordnance project.

Mr. ANTHONY. This amount really covers only the mileage for the officers of the line and Staff Corps of the Army?

Gen. LORD. The staff of the Army including officers in the Ordnance Department, the Air Service, and Engineer Corps when they are traveling on matters that do not pertain specifically to projects carried on under their several appropriations draw the regular mileage allowances.

Mr. ANTHONY. How much will you use for this purpose this year?

Gen. LORD. I might explain the estimate for the current year. The estimate as originally prepared for the current year 1921 provided as follows: For the Regular Army, 16,042 officers, at an average cost of \$116.24, amounting to \$1,864,722; reserve officers, to be

called out for two weeks' training, 35,275 in number, at \$40.04 per man, a total of \$1,412,411; this made a grand total of \$3,277,133.

Mr. ANTHONY. Is that for the current year?

Gen. LORD. That is for the current year, 1921. The amount appropriated was \$3,000,000. Of that amount there has been obligated up to date, or apportioned to bureaus, \$1,964,554, leaving a balance unapportioned at the present time of \$1,034,466.

Mr. ANTHONY. That is due to the fact you have practically used none of the appropriation for the reserve officers.

Gen. LORD. That is true. The estimate for the current year is as follows: For the Regular Army, 19,827 officers, including 900 field clerks and 1,200 warrant officers, at the same estimated cost per man. \$116.24, a total of \$2,304,690; for 30,000 reserve officers, at \$40.04, a total of \$1,201,200; and a grand total for the entire item of \$3,505,890. The estimate submitted to the committee is \$3,000,000.

Mr. ANTHONY. You only account for one-half of the number of reserve officers that you have.

Gen. LORD. The estimate is for 30,000.

Mr. ANTHONY. It has been stated that you have 65,000 reserve officers.

Gen. LORD. This was the number that we were notified by the office of the Secretary of War would be called out for training.

Mr. Sisson. Does the size of the Army cut any figure in that estimate?

Gen. LORD. That is a very pertinent question. This is one of the estimates I have figured on for years, and I tried for a long time to ascertain if the number of enlisted personnel had any definite relation to the amount of mileage needed, and I could not find any connection whatever. We do find, however, that the size of the commissioned personnel affects it very materially, and that the record of the payment of mileage follows in its curves exactly the curve that represents the commissioned personnel.

Mr. ANTHONY. On the theory that the more enlisted men you have the greater the activities of the officer will be.

Gen. LORD. It seems to depend upon the size of the commissioned personnel irrespective of the number of the enlisted personnel. There is a chart on page 148 of the copy of the bill prepared for the use of the committee that will show how true that is—that the size of the commissioned personnel is paralleled by the mileage curve.

Mr. SLEMP. Your estimate for this item is based upon the supposition that you will have the full complement of 17,000 officers, plus the warrant officers and the field clerks?

Gen. LORD. Yes, sir.

Mr. SLEMP. On what theory do you work out the amount of \$116 per man for travel allowance? Are there not any officers who are stationary for a year?

Gen. LORD. Oh, yes.

Mr. SLEMP. How many are stationary and how many are there who will be traveling around? In 1912 you only had \$600,000, in 1913 \$500,000, and in 1914 \$550,000.

Gen. LORD. I have here a table showing the actual expenditures from 1909 to 1921 and the actual number of officers for each year, and that shows that in 1909 the per capita was \$122.58, in 1910 it was \$119.13, and so on. We took the general average for all those years.

Mr. SLEMP. What I am trying to get at is what the plan of the War Department is for next year in the matter of the transfer of officers. Let us see if we can not get at it affirmatively instead of traditionally, you might say. Do you not have a list of officers showing that certain officers are going to stay here, for instance, next year, and that certain other officers are not going to stay in a certain place next year, and finally figure it out affirmatively?

Gen. LORD. When we consider change of station only we only touch one factor of the travel.

Mr. SLEMP. I simply want to get this clear in my mind, as to what you mean by putting \$116 against every officer in the Army as a general proposition. How many officers is it proposed to have traveling during the next year?

Gen. LORD. The amount given as average cost is obtained by dividing the appropriations by the number of officers. It does not mean that all officers travel. Of the \$1,964,000 that has been apportioned and obligated, \$390,436 is all that is due to change of stations. There is \$118,000 obligated by travel of officers in connection with schools of instruction; \$40,604 is used in connection with the travel of officers serving on boards of various kinds; \$60,638 in connection with inspection work; \$55,196 on recruiting work; \$17,092 in connection with property audits; and \$17,000 in connection with investigations and consultations. Changes of station do not tell the story by any means. There are various other legitimate activities which necessitate travel. At the present time the sale, handling, and inspection of the tremendous amount of property we have is affecting the mileage appropriation seriously.

Mr. Sisson. It would be a rather difficult matter to explain to the House, if their attention should be called to it, that in 1916 you spent \$500,000 while next year you are proposing to spend 600 per cent more than that.

Mr. ANTHONY. Nearly half of that amount will be spent in connection with the proposed activities of Reserve officers that we did not have in 1916; is that not true?

Gen. LORD. Yes, sir. The estimate for reserve officers is approximately 34 per cent of the entire estimate.

Mr. Sisson. That accounts for a little more than \$1,000,000?

Gen. LORD. More than \$1,000,000 is estimated for that.

FOREIGN-SERVICE PAY FOR OFFICERS.

Mr. ANTHONY. The next item is, "For additional 10 per cent increase of pay of officers on foreign service." You are asking for \$566,776, while you received \$291,797 for the current year.

Maj. MACKAY. The estimate for 1921 for additional 10 per cent increase in pay of officers on foreign service provided additional pay for a total of 1,059 officers. At the beginning of the present fiscal year there were over 1,600 officers on foreign service, exclusive of military attachés, but it is now estimated from the latest reports received that this amount can be reduced to \$419,917.

Mr. ANTHONY. Is that reduction made because of the probable withdrawal of troops from Germany?

Maj. MACKAY. It is estimated that an average of 1,500 officers will be on a foreign-service status throughout the year. This estimate provides for 1,500 officers and 95 warrant officers instead of 2,000 officers and 170 warrant officers, which is represented in the amount of \$566,776.

Mr. Sisson. Does this item have anything to do with the pay of Army officers in the Philippines?

Maj. MACKAY. It does.

Mr. Sisson. That is considered as foreign service?

Maj. MACKAY. Yes, sir.

Mr. Sisson. What Army officers now receive this increase for foreign service?

Maj. MACKAY. They receive a 10 per cent increase when they are serving beyond the limits of the United States, except in Hawaii, Porto Rico, and Panama.

Mr. ANTHONY. And Alaska?

Maj. MACKAY. No; they receive 10 per cent additional pay in Alaska.

Mr. ANTHONY. So the bulk of this amount goes to officers in the Philippines and in Germany at this time?

Maj. MACKAY. That is true.

Mr. Sisson. May I ask how the United States Government is reimbursed for the expenses of the Army in Germany?

Mr. ANTHONY. Gen. Lord promised to put in a complete statement in regard to that, showing the amounts which had been received from Germany and the amount of the cost.

The German Government in account with the United States of America on account of maintaining the American army of occupation.

Period.	Cost.	Credits.		Rate of exchange
		Marks.	Dollars.	
1918.				
December.....	\$34,344,199.24	54,000,000.00	6,770,931.21	80 12 1/4
1919.				
Jan. 1-Mar. 31.....	113,242,889.30	79,000,000.00	8,504,587.16	1 1/2
Apr. 1-June 30.....	69,245,034.75	190,000,000.00	14,331,568.23	1 1/2
July 1-Dec. 31.....	25,487,023.81			
1920.				
Jan. 1-Mar. 31.....	7,422,715.26	125,000,000.00	1,346,709.76	1 1/2
Apr. 1-June 30.....	7,323,221.99	50,000,000.00	1,046,883.93	1 1/2
Total.....	257,065,084.35	483,000,000.00	32,053,140.29	1 1/2
To amount of credits should be added (to cover miscellaneous items not clearly set forth).....			2,670,978.49	
Total.....			34,724,118.78	
Total cost to June 30, 1920			\$257,065,084.35	
Total credits to June 30, 1920			34,724,118.78	

Balance due the United States to June 30, 1920..... 222,340,425.57

The cost report here given is from a report submitted by the commanding general, American forces in Germany, from calculations made by Col. R. H. Henshaw largely on the per capita cost which was arrived at after a very careful study of general conditions, together with data submitted by the heads of .

departments of the Army in Washington. This account is considered as nearly correct as can be obtained at this time, but is subject to change.

The cash payments in the table and those which follow were taken from the books of the Chief of Finance and include all cash payments in marks made by Germany up to and including December 31, 1920. These figures are correct.

Since June 30, 1920, bills have been prepared at the headquarters of the American forces in Germany from actual expense data and the figures given below are accurate.

Period.	Cost.	Credits.		Rate of exchange.
		Marks.	Dollars.	
1920.				
July 1-Dec. 31.....		70,000,000.00	621,000.00	\$0.0887
July 1-Sept. 30.....	\$6,409,118.49			
Oct. 1-Nov. 30.....	¹ 4,500,000.00			
Dec. 1-Dec. 31.....	² 2,250,000.00			

¹ Bills for Oct. 1 to Dec. 31, 1920, inclusive, not yet received, but from an examination of the disbursing officer's account it is found that \$2,972,208.49 was disbursed during the months of October and November. This, of course, does not cover the cost as the cash expenditures in Germany for July 1 to Sept. 30, inclusive, amounted to about two-thirds of the total cost. On this basis the actual expenditure for all purposes for the months of October and November were approximately \$4,500,000.

² For the purpose of making an approximate estimate of the cost of the army of occupation up to the close of the year, when the last payment was made by Germany, it is assumed that the cost for the month of December was \$2,250,000. This yields:

Total cost, December, 1918, to Dec. 31, 1920.....	\$270,224,202.84
Total credit, December, 1918, to Dec. 31, 1920.....	35,345,658.78
Balance due the United States.....	234,878,544.06

FOREIGN SERVICE PAY FOR ENLISTED MEN.

The next item is, "For additional 20 per cent increase of pay of enlisted men on foreign service." You are asking for \$2,308,373 as against \$1,497,548 appropriated for the current year. Was there a deficiency in that item?

Maj. MacKay. Yes; there was a deficiency in the amount appropriated for the present fiscal year.

Mr. Anthony. What is the amount of that deficiency?

Maj. MacKay. The amount of the deficiency is \$1,694,662.

Mr. Anthony. And the enlisted men receive this 20 per cent increase only for service in the Philippines and in Germany?

Maj. MacKay. And Alaska; and there are also a few in China and one or two in France and England. The same law as to the places where the increase is payable applies to enlisted men as applies to officers.

Mr. Anthony. And the withdrawal of troops from Germany would materially reduce this item?

Maj. MacKay. Yes, sir.

Mr. Anthony. Have you any figures to show how much it will probably be reduced?

Maj. MacKay. The estimate is made on a basis of 25,316 enlisted men being on foreign service. The last report, that of December 14, 1920, shows that in the Philippines there are 18,296, in Germany 14,800, in China 1,346, in Alaska 820, in England and France there are 7, and at sea there are 911. That makes a total of 36,180 at the present time.

Mr. ANTHONY. So that your estimate this year is based upon a resumption of that number?

Maj. MACKAY. Yes, sir.

Mr. Sisson. What is the status of the appropriation for the current year?

Maj. MACKAY. It is estimated that there will be a deficiency in the item of over a million and a half.

Mr. Sisson. What is the status of it at the present time? How much have you in that fund to-day, and how much has been paid out.

Gen. LORD. It is all disbursed as one fund, and the amount under each item is not known.

Mr. Sisson. Why are not the funds apportioned under the law?

Mr. ANTHONY. While Congress apportions the amount, there is a clause in the act which provides that all of the items for pay of the Army shall be disbursed as one fund.

Maj. MACKAY. So that if there is a surplus in one item it can be used to pay a deficiency in another item, but it must be borne in mind that every dollar paid on these items is absolutely required by law, there being no discretion allowed.

Mr. SLEMP. Is this estimate based on the idea that you will have a large number of men in Germany during the next fiscal year?

Maj. MACKAY. It is on the basis of providing funds for the troops in Germany.

Mr. SLEMP. How many troops have you estimated will be in Germany during the next fiscal year?

Maj. MACKAY. Approximately half of the amount provided in this item will be for the troops in Germany.

Mr. ANTHONY. You said that this estimate was based on the probability of 25,000 men being abroad?

Maj. MACKAY. Twenty-five thousand three hundred and sixteen enlisted men.

Mr. ANTHONY. And you have said that there are approximately 36,000 men now abroad.

Maj. MACKAY. That is true, and it is estimated there will be a slight decrease. The 36,000, however, includes Philippine Scouts, who are not entitled to the foreign-service increase.

Mr. SLEMP. Of the 25,316, I believe, you said there would be slightly less than 15,000 in Germany.

Maj. MACKAY. That is the best guess we can make.

PAY OF COMPUTER FOR THE ARTILLERY BOARD.

Mr. ANTHONY. The next item is for pay of one computer for the Artillery board. The amount asked for, \$2,500, is the same as the amount appropriated last year?

Maj. MACKAY. Yes, sir. That has been carried for a number of years.

Mr. ANTHONY. The work of that computer is still necessary. I presume?

Maj. MACKAY. Yes, sir; in connection with the Artillery board.

PAYMENT OF EXCHANGE.

Mr. ANTHONY. The next item is for "Payment of exchange by officers serving in foreign countries and, when especially authorized by the Secretary of War, by officers disbursing funds pertaining to the War Department when serving in Alaska, and all foreign money received shall be charged to and paid out by disbursing officers of the Army at the legal valuation fixed by the Secretary of the Treasury." You are asking for an appropriation of \$5,000 for that item as compared with the appropriation of \$1,000 for the current year?

Maj. MacKAY. Yes, sir.

Mr. ANTHONY. What is the reason for that increase?

Maj. MacKAY. \$5,000 is the amount of the estimated requirements for one year. The payments during the period from July 1, 1919, to March 30, 1920—that is, nine months—amounted to \$3,978, or practically \$4,000, so that, on that basis, we will have a deficiency this year, and it is on that basis that we have asked for an appropriation of \$5,000 for that item for next year.

Mr. ANTHONY. Are you still having trouble with the payment of troops in China in matters of exchange, or has the rate of exchange changed favorably to the Government since last year?

Gen. LORD. We hear of no complaint from there at this time.

Mr. ANTHONY. The rates of exchange are more in our favor now?

Gen. LORD. I think so.

Mr. ANTHONY. You do not have to continue to ship silver over there?

Gen. LORD. No; we discontinued that some time ago.

Mr. Sisson. When the rate of exchange is in our favor, does the Government get the benefit of that?

Gen. LORD. With respect to the payment of troops, no, sir; but in the purchase of supplies and engagement of services, yes.

Mr. Sisson. We only pay when it is to our disadvantage?

Gen. LORD. We pay the troops in our money.

Mr. Sisson. When the exchange rate is against us, of course, that would injure the soldier. The party who is paid gets the advantage, of course, when the exchange rate is in our favor. Does he get the benefit of that profit?

Gen. LORD. We pay the troops ordinarily in United States money. The law requires that all our accounts must be stated in terms of United States currency, although our military attachés usually buy local currency with which to pay their office expenses.

Mr. Sisson. That is true; and when that currency is at par, of course, it is absolutely equal?

Gen. LORD. Yes.

Mr. Sisson. But if it is above par the soldier gets the benefit of the increased purchasing power of his dollar in the foreign money?

Gen. LORD. Yes, sir.

Mr. Sisson. When the exchange is against us Uncle Sam pays it?

Gen. LORD. Uncle Sam loses if the value of any local foreign currency which his representatives have bought to meet local cash requirements falls in value before it is disbursed, and this appropria-

tion is for the purpose of meeting this depreciation. Should the local currency increase in value, the United States gains, and receives credit therefor, but the amount of such gains can not be applied to the losses, which pertain to individual transactions. The appropriation permits of immediate adjustment of these transactions in the accounts of the disbursing officers, and really amounts to nothing more than a bookkeeping transaction. It is probable that in the long run the losses and gains offset each other.

Mr. SLEMP. I can not visualize the circumstances under which we would need this money at all.

Mr. ANTHONY. China was practically the only country last year in which the rate was against us, where the soldier suffered?

Gen. LORD. Yes, sir.

Mr. ANTHONY. That is obviated now, so there will be only minor instances?

Gen. LORD. In Germany the exchange rate is very greatly in favor of the officers and enlisted men.

Mr. SLEMP. We do not undertake to protect that situation at all, do we?

Gen. LORD. No. In China after the armistice the exchange rate was seriously against us and as a result the officers and enlisted men had a very hard time.

Mr. ANTHONY. At one time in China the soldier used to receive 93 cents for every dollar.

Gen. LORD. Yes, sir. This provision of law which is under consideration authorizes the Secretary of the Treasury to determine periodically the rates of exchange. That was very necessary during the war. At the present time the Secretary of the Treasury notifies the chief of finance for the War Department what the rate of exchange is on marks and the rate on francs for each recurring month and these rates are cabled to our disbursing officers in foreign countries to assist them in making their disbursements, because they deal in the currency of the country where they are. For that particular month the disbursing officer has a fixed center or point of exchange, and if in following that rate fixed by the Secretary of the Treasury there is a loss by exchange, the Government stands the loss and it is paid from this appropriation; if there is any gain by the exchange, the Government gets the benefit. Otherwise disbursing officers if they secured funds at one rate of exchange to-day and later through change in rate were obliged to disburse such funds at another rate of exchange. they would face a serious problem in bookkeeping and possible loss.

While there is a very small amount involved—we paid only \$3,978.93 for nine months of this year—it obviates a great deal of trouble.

Mr. Sisson. Do you not think that during the next fiscal year beginning in July the exchange rate will be more nearly normal and probably the difference will not be so great?

Gen. LORD. This provision of law is the outgrowth, I think, of a series of suspensions made by the accounting officers of the Treasury against the accounts of disbursing officers due to changing rates of exchange. Under the present system it costs the Government a very small amount and obviates a great deal of bookkeeping.

Mr. Sisson. As I understood the proposition as it was discussed very fully before the subcommittee, it was largely a question of

bookkeeping, to get these accounts balanced in the Treasury Department, and it was not always an actual expenditure of great amounts of money, because when you take a big proposition it did not amount to very much, but as a bookkeeping proposition it kept the Treasury's books constantly out of balance, when you consider the large number of consular officers, commercial attachés, and military attachés throughout the world.

Gen. LORD. That did settle all of that controversy.

ADDITIONAL PAY ALLOWANCES TO MOUNTED OFFICERS.

Mr. ANTHONY. The next item is "For additional pay to officers below the grade of major required to be mounted and who furnish their own mounts, \$300,000." That is the same amount that is carried in the current appropriation act?

Gen. LORD. Yes, sir.

Mr. ANTHONY. Will you use all of that money this year?

Maj. MACKAY. I think practically all of it will be used, although I can not say definitely. No separate record has been kept of this item.

Mr. ANTHONY. Can you put in the record a statement showing how much of it has been used?

Maj. MACKAY. Yes, sir; if it can be ascertained.

Mr. ANTHONY. This is the item on which Gen. Snow appeared before us the other day?

Maj. MACKAY. Yes, sir.

FOR PAYMENTS TO JENNIE CARROLL AND MABEL H. LAZEAR.

Mr. ANTHONY. The next two items are for \$1,500 each, the amount required to make monthly payments to Jennie Carroll, widow of James Carroll, late major, United States Army, and to Mabel H. Lazear, widow of Jesse W. Lazear, late acting assistant surgeon, United States Army. These officers were men who were engaged in the yellow-fever experiments?

Gen. LORD. These are annuities to the widows of officers engaged in that yellow-fever work.

FOR PAYMENT OF JOHN R. KISSINGER.

Mr. ANTHONY. The next item is for \$1,200, the amount required to make monthly payments to John R. Kissinger, late of Company D, One hundred and fifty-seventh Indiana Volunteers, also late of the Hospital Corps, United States Army. He was a man who offered himself as a subject for experiment in the yellow-fever work?

Gen. LORD. Yes, sir.

Mr. ANTHONY. Has the department had any reports lately as to his physical condition?

Maj. MACKAY. None that I know of.

Mr. ANTHONY. Gen. Ireland, do you ever get such reports?

Gen. IRELAND. No, sir. This man is a discharged man, and we do not get reports from him.

Mr. ANTHONY. Will it be possible to insert in the record a statement showing his present physical condition?

Gen. IRELAND. As soon as we can get it I will send you the information.

Mr. ANTHONY. The question was asked on the floor of the House last year as to whether these widows are still alive. I presume they are?

Gen. IRELAND. Yes; they are.

FINANCE DEPARTMENT—COMPENSATION OF CLERKS AND OTHER EMPLOYEES.

Mr. ANTHONY. The next item is a new item in this bill, "For compensation of clerks and other employees of the Finance Department, \$1,420,000."

Gen. LORD. This is a new item in the appropriation for pay of the Army.

Mr. ANTHONY. Where did you formerly get that appropriation?

Gen. LORD. For the current fiscal year the provision was carried under incidental expenses. Finance was not a statutory bureau at that time.

Mr. ANTHONY. Now it is a statutory bureau and is separately estimated for?

Gen. LORD. Yes. During the current fiscal year the expenditures thus made and the estimate for the balance of the year would involve an amount of \$2,490,000.

Mr. ANTHONY. That is for this year?

Gen. LORD. Yes; that is the total provided for. For 1922 we are asking for \$1,420,000, which will pay for approximately 812 clerks. At the present time we have 1,800 civilian clerks employed.

I wish to call attention to the class of work that these finance field clerks will perform, which may be divided into the following three classes:

(a) Disbursing funds and accounting therefor, including the payment of all Army bills for services and supplies.

(b) The auditing of all Army property.

(c) The audit of all contracts, war contracts and others, in which Army supplies and materials are used.

NOTE.—October 31, 1920, including corps area headquarters, recruiting stations, and places in Great Britain, France, and Germany, there were 411 places where disbursements of Army funds were made, all of this work being carried on under the control of the Finance Department and with the use of finance personnel, with certain minor exceptions.

Following is a list of the principal disbursing points in this country which employ finance personnel, with the number of vouchers and amount paid at each point during the month of November, 1920:

Station.	Vouchers.	Amount disbursed.	Station.	Vouchers.	Amount disbursed.
Boston	2,581	\$3,019,695.96	Seattle.....	1,052	\$330,615.75
Baltimore.....	966	272,193.75	Fort Sam Houston.....	4,022	1,386,907.00
New York.....	9,335	8,199,856.39	Jeffersonville.....	600	448,751.00
Atlanta.....	3,493	1,311,648.57	Los Angeles.....	710	145,000.00
Philadelphia.....	1,867	4,756,620.15	Norfolk.....	574	372,000.00
Chicago.....	4,188	3,940,733.00	Middletown, Pa.....	601	197,000.00
St. Louis.....	1,298	636,503.41	Omaha.....	1,086	308,700.00
New Orleans.....	951	402,558.11	El Paso.....	2,004	1,389,000.00
San Francisco.....	3,204	2,138,110.13			

ARMY PROPERTY AUDITING.

The audit of these billions of dollars' worth of Army property is a very important activity of the Finance Department. The Finance Department has found and returned to the Government serviceable property valued at something over \$2,000,000, and in addition to this \$465,394.97 has been collected in cash from various sources in connection with this property audit. One feature of this property audit activity has been the audit of the retail stores which were operated in various parts of the country for the sale of surplus war supplies. As a result of our audit in one city we discovered a deficit of approximately \$50,000, and collected the money. We found a shortage of \$60,000 in another retail store, and a shortage of \$1,500, approximately, in another. In connection with the \$60,000 shortage, a check for \$59,897.40 was deposited December 18 last, which represents the collection of an undercharge on blankets sold to a certain firm from that retail store.

Mr. SLEMP. Are you not virtually reviewing the work of the Quartermaster Department?

Gen. LORD. Only to the extent that we are checking up the property transactions of all the supply bureaus of the War Department.

Mr. SLEMP. Do they not have a system of checking and investigating and auditing and reporting?

Gen. LORD. They have a system of checking, but the Chief of Finance has been charged with the exclusive duty of auditing the property accounts of all Army officers accountable for property, and this applies to all War Department bureaus.

Mr. Sisson. It is absolutely necessary that one department should have charge of all of it?

Gen. LORD. Yes.

Mr. SLEMP. I want to find out whether there is any duplication of clerks or duplication of service?

Gen. LORD. No; there is no duplication whatever. The Chief of Finance is charged with the entire duty of the property audit of the Army.

Mr. ANTHONY. Were these shortages discovered by the officers of the Quartermaster's Department or by your auditors?

Gen. LORD. They were discovered by the property auditors of the Finance Department. Recently, however, the Quartermaster General asked for the assistance of the Finance Department in investigating a series of contracts, which disclosed a discrepancy of approximately \$1,000,000.

Mr. SLEMP. Does the Quartermaster General also have an auditor who visits these same stores?

Gen. LORD. Checking up this property?—no, sir.

Mr. SLEMP. If the Quartermaster General establishes a store somewhere for the sale of goods, what does he do? Does he notify you that he has established the store?

Gen. LORD. That is not necessary, as the Finance Department collaborates with the Quartermaster Department in the operation of these stores, inasmuch as the funds received from sales must all be turned into a finance officer who accounts for same.

Mr. SLEMP. What is the relation between your bureau and the Quartermaster General's Department?

Gen. LORD. The same relation that there is to all the other bureaus of the War Department. The Finance Department is an independent statutory bureau like the Quartermaster Department and the Ordnance Department, and handles the finances of all of them, and audits the property of all of them.

Mr. SLEMP. Do you trace the sale?

Gen. LORD. We do not trace every sale.

Mr. SLEMP. I am trying to find out where one bureau begins and the other leaves off.

Gen. LORD. The quartermaster or ordnance officer makes the sale while the finance officer receives the money, accounts for it, and makes all disbursements.

Mr. ANTHONY. Does not the Quartermaster General follow up the operations of these stores?

Gen. LORD. He has charge of and supervises the operation of the stores, but necessarily he can not audit his own system of property accounting.

Mr. Sisson. It would be no check at all.

Gen. LORD. He has supervisory oversight of the stores. The quartermaster officers charged with the duty presumably see to the general management of the stores. But the work of auditing the property has been very properly assigned to an outside, impersonal agency—the Finance Department. This in nowise interferes with the Quartermaster General's administration of his sales stores.

Mr. SLEMP. You mean you audit the property and you get simply a list of the property which the Quartermaster General has?

Gen. LORD. We check up the property on hand in the stores. The officer in charge must show the property or account for it in some way.

Mr. SLEMP. The Quartermaster General ought to have done the same thing.

Gen. LORD. Then, you would have a duplication of work. To-day the Finance Department experts do the work, and do it very effectively, as the amount of property recovered and the cash collected shows.

Mr. SLEMP. When the Quartermaster General opens a store for the sale of goods and sends so many things there, that is all listed?

Gen. LORD. Yes.

Mr. SLEMP. And those goods have a certain valuation and they are listed at a certain valuation?

Gen. LORD. Yes.

Mr. SLEMP. All that is done by the Quartermaster General's Department?

Gen. LORD. All of what is done?

Mr. SLEMP. Suppose a store is opened for the sale of goods. A lot of goods will be sent there, and those goods will all be listed?

Gen. LORD. They are supposed to be.

Mr. SLEMP. Do they not check it up?

Gen. LORD. They check it up probably, but are not able to audit their own accounts.

Mr. SLEMP. They sent the goods there.

Gen. LORD. The Quartermaster General's Department shipped goods to the men in these retail stores referred to and they were charged against the store. We found that a lot of it had not been accounted for.

Mr. SLEMP. Does not the Quartermaster General check that up also?

Gen. LORD. How could the Quartermaster General check up himself?

Mr. SLEMP. I do not follow you at all on that.

Mr. ANTHONY. The Quartermaster General should have some check on the officials in his department.

Gen. LORD. He does have, but he does not make and can not make a physical audit of his various property transactions to see whether or not his property officers have the property.

Mr. SLEMP. Why does not somebody check up your work?

Gen. LORD. The Inspector General's representatives make a periodical inspection of disbursing officers' accounts, as required by regulations to see if War Department and Treasury requirements are complied with.

Mr. ANTHONY. And on top of that the accounting official checks it up?

Gen. LORD. Yes, sir; as required by law. The accounting officials of the Treasury, however, have no control over property, the last word as to disposition of Government property resting with the Secretary of War. It is necessary to have one property auditing activity, as is the case in every big business. A going concern in making an audit of its accounts does not depend upon an audit of its various branches made by the people who operate those branches.

Mr. SLEMP. But you go further than that. You check up the specific articles.

Gen. LORD. Yes.

Mr. SLEMP. You are more than a bookkeeper; you are an inspector, apparently.

Gen. LORD. These supply bureaus keep stock records.

Mr. SLEMP. Now, trace it on from that point.

Gen. LORD. The auditor from the Finance Department checks up that record to see if the property listed is in possession. This field property audit system has taken the place of the former system.

Mr. SLEMP. Do you mean he checks up the goods and compares them with the record?

Gen. LORD. He goes into a sales store or he goes into a depot and finds that since the last audit there have been received and sent to that depot or to that store certain classes of articles. He then makes such physical inventory as may be necessary to determine if the property for which the property officer is accountable is all there.

Mr. SLEMP. Does the Quartermaster General do that same thing?

Gen. LORD. He does not. There is absolutely no duplication of work.

Mr. SLEMP. Does the Quartermaster General's Department notify you that certain goods have been sent to a particular point?

Gen. LORD. No, sir.

Mr. SLEMP. How do you find it out?

Gen. LORD. Copies of invoices or shipping tickets are sent to the Finance Department.

Mr. SLEMP. They are sent to the Finance Department?

Gen. LORD. Yes, sir.

Mr. SLEMP. Then the Quartermaster General loses control of those articles after that?

Gen. LORD. He loses no control whatever. He can sell the supplies, issue them, or do whatever is necessary. That is a matter that does not concern the Finance Department—

Mr. SLEMP (interposing). As to their destination, the receipts from them and the disposition of them?

Gen. LORD. The Finance Department has nothing to do with the disposition of the supplies, except to see to it that the disposition made of such property is a proper one, and that as stated before the property officer has on hand the supplies with which he is properly charged. There is no interference whatever with the operations of the supply bureaus, but rather assists the supply bureaus in the preservation of their supplies.

This property audit is confined exclusively to the audit of property in the hands of commissioned officers.

AUDITING OF CONTRACTS.

The most important branch of our auditing work to-day, however, is the auditing of Government property issued to contractors during the war. In many cases the Government entered into contracts where, because of the impossibility or difficulty of getting the raw material it was necessary to furnish to contractors such supplies. In many of those cases the contractors have been paid the full amount due them. The Finance Department is now auditing these war contracts to ascertain whether the contractors have accounted for all the Government materials turned over to them by the various War Department bureaus. The record of payments shows how many completed units have been furnished by the contractor and the records of the supply bureaus show what quantities of supplies have been furnished the contractors, the amount of raw material entering into such units is ascertainable and the contractor must return or pay for the difference. My office receives weekly reports of the amounts found due from contractors on account of this Government property. For the week ending December 12, 1920, we have found due the Government, which we have collected and are collecting, \$20,212,514.68 from contractors.

Mr. ANTHONY. What kind of contracts were those, contracts settled by the War Claims Board?

Gen. LORD. They were contracts settled by the War Claims Board and also regular contracts settled in the regular way.

Mr. ANTHONY. They were settled without authority of any bureau in the department, just simply by the authority of the Secretary of War operating through the War Claims Board?

Gen. LORD. Each bureau had its own war claims board, and the original settlement was recommended by such bureau boards. They settled the case in the field and it was referred to the War Department Claims Board, appointed by the Secretary of War, for approval or modification; but the negotiation was carried on in the field by the boards appointed by the various bureau chiefs.

Mr. ANTHONY. So you are supervising settlements of all these war contracts that have been adjusted under the Dent Act?

Gen. LORD. No; we are checking the property involved as to whether it has been accounted for.

Mr. Sisson. In many instances the Government furnished a certain amount of raw material in order that it might control the purchase and the price of the raw material to the various contractors, and when the armistice was signed and the settlement was made certain raw materials were left on their hands, for which they ought to account, and you handle the audit of that property?

Gen. LORD. In many cases there was involved the construction of an obscure contract which the contractor construed favorably to himself.

CONSOLIDATING ACTIVITIES WITH OTHER DEPARTMENTS.

Mr. ANTHONY. I would like to ask you a question in regard to the matter of duplication. Are you consolidating the activities of the Finance Department over the country wherever it is possible with those of the Quartermaster's Department or the Ordnance Department?

Gen. LORD. You mean tying in with them?

Mr. ANTHONY. Yes, sir.

Gen. LORD. So as to work along harmoniously?

Mr. ANTHONY. Yes.

Gen. LORD. Yes, sir.

Mr. ANTHONY. I had a case called to my attention not long ago in regard to some subordinate officer of the Finance Department at some post who was short in his accounts. There was a quartermaster there who had no control over him. I saw the notation made by the quartermaster officer and he said if this man had been serving under him this shortage would not have occurred. In a similar case would that finance officer still be independent?

Gen. LORD. That finance officer, like the quartermaster, would be independent and both would be subordinate to the commanding officer of the post, camp, or station——

Mr. ANTHONY (interposing). In other words, they do not mutually check each other?

Gen. LORD. No, sir; except that they are supposed to keep each other informed of facts and transactions in which both are interested.

Mr. ANTHONY. Although you check the operations of the technical and other bureaus?

Gen. LORD. We check the operations of all the bureaus as far as property is concerned. But in many cases the quartermaster is also the finance officer, and sometimes the finance officer acts as quartermaster.

Mr. ANTHONY. That is really what I mean.

Gen. LORD. Yes; that is true, and where the quartermaster has sufficient time——

Mr. ANTHONY. And he also disburses funds?

Gen. LORD. He is appointed an acting finance officer. Sometimes you will find a quartermaster doing finance work, ordnance work, or work pertaining to other bureaus. This is always the case where the work permits.

Mr. SLEMP. You were speaking of the investigations of the materials used in connection with war contracts. I suppose there are

75,000 or 80,000 of those contracts. What general plan have you adopted in regard to that? Are you taking all those things and looking them over and seeing what the possibilities are? Are you doing this in a systematic way, or do you just investigate some chance contract that you hear about?

Gen. LORD. We are doing it in as systematic a way as is possible. Of course, it is very evident that unless we have a much larger personnel than we are asking in this bill we can not investigate all of these contracts in which Government property is involved within any reasonable period of time. We are doing it in a systematic way, and we have as large a force as we can spare working on it. We have just entered upon an investigation of one class of contracts which involve \$12,000,000. We have completed an audit of the Old Hickory plant, just outside of Nashville. That required the services of one officer and six clerks for two months.

Mr. ANTHONY. In connection with the Old Hickory plant, did the Government ever get restitution of the platinum that was stolen there?

Gen. LORD. One of the civilian employees is under arrest, charged with the theft of that platinum sponge.

Mr. SLEMP. General, who fixes your jurisdiction?

Gen. LORD. The Secretary of War.

Mr. SLEMP. Would you put into the record what his directions are to you; that is, how he fixes your limits, as it were?

Gen. LORD. The directions covering the property audit are a very extensive compilation and would require many pages of the record.

Mr. SLEMP. Take an automobile, for example. Would you take that up, examine it, and see what it is worth?

Gen. LORD. No, sir; not necessarily. If we find that there has been issued to a contractor so many yards of cloth or so many tons of steel, we follow that shipment through to see what disposition the contractor has made of it. We find that he may have been paid in full on the basis of the completed unit delivered, but that there is a balance of the cloth or steel for which he must account, and we see that he produces the supplies or pays for them.

Mr. ANTHONY. Why can not the receiving officer see that the contract is fulfilled?

Gen. LORD. He does; but he would not be the proper person to audit transactions under a contract to which he is one of the parties.

Mr. ANTHONY. Does he see that those contracts are fulfilled?

Gen. LORD. The officer who receives the supplies may not be the contracting officer. The representatives of the supply bureaus, however, do watch very closely, under ordinary conditions, the fulfillment of contracts, but were not able to check up the property in connection with war contracts.

Mr. ANTHONY. Leaving the question of the war contracts out, say, on the current business of the Army; say the Ordnance Department places a contract for a supply material. Does the Ordnance Department check up on the fulfillment of that contract?

Gen. LORD. Yes, sir.

Mr. ANTHONY. Then the work you do on that is on top of that?

Gen. LORD. We inspect all the ordnance property irrespective of what they report to us.

Mr. ANTHONY. You do not take an individual contract unless some question arises?

Gen. LORD. No, sir.

EMPLOYEES.

Mr. SLEMP. Have you classified your clerks, those that are located in Washington, New York, Chicago, and other places?

Gen. LORD. Yes, sir. Before I leave that I will submit that.

When I was before this committee some years ago in connection with appropriation hearings, a witness stated that if he could be given a certain amount of money for a certain purpose it would result in saving thousands of dollars for the Government, and I remember the then chairman, Mr. Sherley, said that the committee had heard many such statements, but that the promises made were not reflected in the receipts of the Government. With that statement in mind I wish to submit for the personal inspection of the committee a check just received from a war contractor for \$76,521 to cover a shortage of Government material developed by the finance department's property audit. On December 9 last a check for \$98,984.61 was received from another contractor for a similar discrepancy. We have found \$22,000,000 in this way.

Of the clerks estimated for in this bill there will be 300 in the Army field office in this city. You know it better as the zone finance office. We are closing out in that office the bonds and war allotments and the war-risk insurance allotments, and we have there now something more than 700 clerks. We hope to reduce that number to 300 by July 1.

LIBERTY BONDS HELD IN TRUST FOR SOLDIERS.

I do not know whether any of you have received copies of this circular which we have issued. We have in the Army finance office, this city, \$375,000 worth of Liberty bonds that have been paid for by soldier subscribers, on which coupons for two years have accrued, amounting to about \$30,000. These bonds have been paid for and are being held in trust by us at the request of the soldiers who subscribed for the bonds. When the time slipped by and no application was received from the soldier, we applied to The Adjutant General for the man's last address—the address given by the soldier on his discharge. We wrote to the addresses given and, after exhausting every means of search, have all these paid-up bonds on hand waiting claimants. We have printed the names of the subscribers in this book and have sent copies to all posts of the American Legion in the effort to locate the owners of these bonds. That will give an idea of some of the problems we have.

EMPLOYEES.

Mr. SLEMP. General, how many of those 300 men in Washington are purely clerks—that is, stenographers and what are known as clerical assistants?

Gen. LORD. Comparatively few of them are stenographers. Most of them are clerks who perform general clerical work, search files, compare records, and gather information in answer to queries.

Mr. SLEMP. How many in your department here do you have working on the auditing of these 70,000 contracts?

Gen. LORD. We have about 300 on that work here in Washington and in the field outside of Washington.

Mr. SLEMP. Of the 800? You have about how many clerks now?

Gen. LORD. About 1,800 at the present time. We have between 300 and 400 engaged in property auditing and contract auditing.

Mr. SLEMP. Do you call them traveling auditors?

Gen. LORD. We do not call them auditors. They are connected with our auditing force. We carry them as clerks.

Mr. SLEMP. What salary do they get?

Gen. LORD. Two experts get \$4,000 each. That is the highest we pay.

Mr. SLEMP. The rest?

Gen. LORD. Run all the way down. One or two get \$3,000, some \$2,400.

Mr. SLEMP. They get allowances for travel?

Gen. LORD. A per diem, \$4 a day in lieu of expenses for subsistence and lodging.

Mr. SLEMP. Now, then, in cutting down from 1,800 to 800, what effect does that have upon your auditing force—your force of traveling auditors?

Gen. LORD. Our auditing force will not be reduced below what it is now. The reduction will be the general disbursing activities and finance work in the various finance offices scattered about the country.

SOLDIERS' BONUS.

Mr. SLEMP. Now, you regard the \$60 bonus business as pretty well out of the way?

Gen. LORD. The \$60 bonus is not out of the way. Claims are coming in at the rate of 1,000 to 1,200 a month now.

Mr. SLEMP. How near are you to the end of having paid out the \$60 bonus authorized by law?

Gen. LORD. I do not know the total amount that we have paid. In the Army finance office, this city, we have paid 1,651,528 claims and expended \$99,099,684. We pay in Washington the claims of men who were out of the service before the bonus act went into effect. Those in the service when the act went into effect were paid in the camps when discharged.

Mr. SLEMP. Are you nearly through?

Gen. LORD. I can not tell. I should think we are nearly through, but we are getting 1,000 to 1,200 a month.

Mr. SLEMP. You can not make an estimate on such services for next year?

Gen. LORD. We had not figured any estimate. Those claims being received now are paid out of a prior year's appropriation; most of them from appropriations for the fiscal year 1919.

ACTIVITIES.

Mr. SLEMP. That could be out. Now, then, you have gone on this matter of Liberty bonds just about as far as you can go, have you not?

Gen. LORD. Yes and no. We have still a great number of unsatisfied claims for bonds and are receiving many additional claims for bonds of all issues from enlisted men and emergency officers who have gone out from the service.

Another continuing activity we have in the Army finance office in Washington is the payment of all transportation and telegraph and cable accounts of the Army, which are many thousands in number.

In this office we also pay all allotments of enlisted men, pay of all retired officers and retired enlisted men, and all miscellaneous pay and mileage accounts, this office being a sort of clearing house for the Finance Department.

There were engaged in this office July 1, 1919, 85 officers and 4,926 clerks. At the present time there are 8 officers and 709 clerks. We plan to have on July 1, 1921, in this office 6 officers and 300 clerks, which will make a reduction of 90 per cent in officers and 94 per cent in clerks since July 1, 1919.

During the war the personnel of the Army subscribed for something more than one-quarter of a billion dollars' worth of Liberty bonds, approximately one hundred million of this being through the Army allotment system, which is handled in the Washington finance office. To include August 31, 1920, there were shipped to subscribers from the Washington Finance Office 1,095,578 bonds, in the par value of \$54,478,000. Many millions of dollars' worth of bonds paid for through the Army allotment system were subscribed by Army personnel through local banks and have been paid for by the Army Finance Office, Washington, D. C. There remain to-day awaiting settlement many claims for bonds, which require research and securing of information from the offices of the Auditor, The Adjutant General of the Army, and the Bureau of War Risk Insurance. This activity is a very important one at the present time, affecting as it does the claims of discharged officers and enlisted men who served during the war.

Voluntary allotments of soldiers made under the provisions of law are paid from this office. In August there were 39,138 of these allotments paid in sums totaling \$486,537.20. Of this number 20,623 were allotments for converted insurance, payment being made to the Bureau of War Risk Insurance.

As stated above, all transportation and telegraph and cable accounts are settled in the Army Finance Office, Washington, D. C. During October, 1920, there were 78,701 of these accounts settled. The amount paid in settlement of this class of accounts during the fiscal year ending June 30, 1920, was \$465,193,512.66.

The following statement of payments in this office during October, which is the last month in which all figures are available, is as follows:

Allotments paid and bonds issued, 43,616; pay and mileage accounts paid, 29,022; transportation and telegraph accounts, 78,701; miscellaneous, 6,568; total, 157,907 vouchers.

The total disbursements for October were \$9,742,793.76. In this one disbursing office of the Finance Department the total actual expenditures from July 1, 1920, to October 31, 1920, were \$76,041,670.40.

In connection with the work of searching records in order to furnish information on which to settle the numerous claims received or to answer inquiries relative to the status of the accounts of officers and enlisted men who were formerly in the service, there are at the present time employed in the Office of the Auditor for the War Department searching records 58 clerks, while 2 are engaged constantly in the Bureau of War Risk Insurance on the same task.

The work attendant upon the settlement of the various classes of claims coming out of the war gives no indication of any diminution, and it is very certain that for some years there will be need of a large force of personnel to maintain this very important activity.

Mr. SLEMP. Do you audit these accounts also or just pay them when submitted?

Gen. LORD. We make what is called a perfunctory examination of such accounts. Money accounts are audited in the office of the auditor, but it is necessary to check them up to see if they have been

paid properly, otherwise a suspension is made by the auditor against the man who pays them. But we do not audit them in the sense of a careful audit. We do make an administrative examination of them. For next year we will not be able to reduce below 300. If we can reduce the force in that office to 300 the next year we will be accomplishing a great deal.

Mr. SLEMP. Do you mean the so-called traveling auditors?

Gen. LORD. No; of clerks in the Army finance office, this city.

Mr. SLEMP. How many in New York and how many in Chicago?

Gen. LORD. In New York, at Governors Island, and at South Brooklyn we have 141 clerks, and in Chicago we have 78. The force is being reduced at all those points. Some of these clerks are engaged in property audit and contract audit.

Mr. SLEMP. How near through are you in checking the value of Government property?

Gen. LORD. We are not checking the value of Government property, but we are ascertaining whether it is all accounted for, whatever its value. We have probably audited all the property by this time and in some cases reaudited. We have but a small commissioned and clerical force available for this important work. One immediate problem was the auditing of the property accounts of emergency officers leaving the service, and we have finally checked their property. The problem is simplifying itself.

Mr. SLEMP. How far are you along in ascertaining the value of Government plants?

Gen. LORD. I do not know. We do not audit with a view to establishing the value of Government plants.

Mr. SLEMP. How did you get it on the Old Hickory plant, then?

Gen. LORD. Our task was to audit the accounts of property and see that it was all in hand and that none of it had been diverted to other than Government uses.

Mr. SLEMP. You do not have anything to do with the houses and waterworks?

Gen. LORD. No; we make no appraisal of them.

Mr. SLEMP. How near are you through with your end of it—the Government movable property?

Gen. LORD. We never will be through. We go over it again and again, because it is constantly changing. We never will be through with the audit of Government property. It is a continuous performance, for the Government is always issuing and using property and replacing it.

Mr. SLEMP. I have a little feeling that a lot of others are doing the same thing.

Gen. LORD. There are no others doing the same thing and there is no duplication of any kind, character, or description in this property audit.

Mr. SLEMP. Would not the Ordnance people have an audit of what they are getting?

Gen. LORD. They have an audit of their contracts.

Mr. Sisson. I would not give you a sniff of snuff for an audit where the fellow audits it himself. There is hardly a State Government now that does not have these audits made by a separate department from the concern that manages it and spends the money. There is

not a business in the world that does not have the same kind of an audit.

Gen. LORD. This activity of the Finance Department does not infer any delinquency on the part of the bureau chiefs. They have the system they have always had of administrative control, examination, and supervision. Wherever there has been Government property issued we are following it through, and this system of following through has turned into the Government to date more than \$20,000,000, and there is no other agency engaged in making a property audit in the War Department.

Mr. SLEMP. That is where the line is. When this Government property is required you trace it through to its destination.

Gen. LORD. We see that it is properly accounted for by the officers in whose possession it is.

Mr. SLEMP. Government property?

Gen. LORD. Yes, sir.

Mr. Sisson. And see that it is on hand and not squandered.

Mr. SLEMP. I think I get your line of division.

When a settlement is made between the Government on the one hand and the contractor on the other hand, do you get any audit on that afterwards?

Gen. LORD. Yes, sir. We have a case in hand of a firm where——

Mr. Sisson. Every man that has made a complete and honest settlement with the Government would not only suffer no inconvenience but would invite an investigation, if he is a straight and honest man. If the settlement has not been completed, an honest business man would have no objection in the world to the audit being made, and in most of the cases these settlements are made without any lawsuits, are they not?

Gen. LORD. Yes, sir.

Mr. Sisson. Where the man admits that he owes it?

Gen. LORD. I would say that from the reports of the auditors the contractors, as a rule, offer no objection, and in most cases seem to invite the investigation.

Mr. SLEMP. You do not go with this investigation beyond the property?

Gen. LORD. No, sir.

PROVISION THAT ALL ITEMS SHALL BE DISBURSED AND ACCOUNTED FOR AS
“PAY OF THE ARMY.”

Mr. ANTHONY. General, with regard to the proviso that we have always carried at the end of these appropriations, that all the different items “shall be disbursed and accounted for as ‘Pay of the Army,’ and for that purpose shall constitute one fund,” do you think that is absolutely essential?

Gen. LORD. It is an impossible thing to estimate exactly what the foreign-service pay would be for any time on account of the variation of personnel. A man might be sent to foreign service, and then, if we lacked the authority to transfer, carried in that paragraph in “Pay of the Army” which stipulated so much for the foreign service and so much for pay of enlisted men, the result might be that we might be able to pay him but part of his pay.

Mr. Sisson. But, General, as a war measure that looks like it is all right, but as a peace proposition it looks as if Congress turns loose every string it has on the expenditure of money.

Gen. LORD. That has obtained for years.

Mr. Sisson. It does not matter. We did not have your finance office for years and we got into a heap of trouble. Because it has been here a long time does not make it right.

Gen. LORD. You see all rates of pay are fixed by statute. The foreign-service pay is fixed by statute. If you do not give it now, you must give it later, and it would involve us in extra bookkeeping. If we could figure very close and could extend that amount, we could only partially pay our men, partially pay our officers and nurses. These payments to officers and enlisted men for foreign service, longevity, and the like are fixed by statute and must be paid when earned.

Mr. Sisson. I see. General, this is limited to the "Pay of the Army."

Gen. LORD. Mileage is excluded.

Mr. Sisson. If mileage is excluded I do not know that that would be subject to the criticism that is sometimes made against it. The interchange of funds generally is a very bad system of Government.

Mr. ANTHONY. It is least objectionable under the items of "Pay of the Army" than in the other parts of the bill. I believe it is carried in other places in the bill.

Mr. Sisson. A moment's reflection and the general's explanation show me that it is not subject to the objection I had in mind.

Gen. LORD. Because, you can not pay it out except as required by law.

Mr. Sisson. And after reading again the clause, it calls my attention especially to the fact that it is restricted to pay of the Army. It is fixed by law and as you transfer a man from continental United States to a division where he gets increased pay, that may change the condition.

Mr. SLEMP. Suppose that this committee should make some little change in the number of clerks, compensation of employees, etc., but keep that language in, how would that change be effectuated?

Gen. LORD. Do it in the provision, rates of pay, that is all.

Mr. SLEMP. That might reduce it in one item, but you would have a discretionary power yourself?

Mr. Sisson. You are speaking of the pay of the Army?

Mr. SLEMP. That involves clerks, etc.

Gen. LORD. The clerks in the office of the Chief of Staff, for example, can only be paid as you specify in the bill.

Mr. Sisson. So, as you reduce the number of men arbitrarily, the number of men engaged in the clerical end of the pay of the Army is correspondingly reduced.

Gen. LORD. As you reduce them specifically under those particular heads, the War Department is compelled to keep within restriction.

Mr. ANTHONY. This finishes the miscellaneous items.

Gen. LORD. And the pay of the Army. I have taken more time than I intended in my hearing.

Mr. SLEMP. I think it has been very interesting.

THURSDAY, JANUARY 6, 1921.

QUARTERMASTER CORPS.

STATEMENTS OF MAJ. GEN. H. L. ROGERS, QUARTERMASTER GENERAL; COL. J. R. R. HANNAY; COL. C. H. MARTIN; MAJ. J. D. CARMODY; MAJ. J. H. ADAMS; CAPT. A. J. CHAPPALL; COL. A. B. WARFIELD; AND LIEUT. C. B. F. BRILL.

GENERAL STATEMENT.

Mr. ANTHONY. Gen. Rogers, you are the Quartermaster General of the Army, I believe?

Gen. ROGERS. Yes, sir.

Mr. ANTHONY. We are going to take up the appropriation for your corps. Can you tell us in a general way something about what you propose to do under these appropriations?

Gen. ROGERS. If I can read this short statement, Mr. Chairman, I think it will give the committee a better idea of what we desire. [Reading:]

The estimates for the support of the Army for the fiscal year 1922, so far as the Quartermaster Corps is concerned, may be said to have passed through four phases:

First phase, estimates prepared in accordance with instructions from the War Department, based upon an Army strength of 280,000 enlisted men. The total of the estimates submitted by the Quartermaster Corps for this strength was \$381,204,133. The total strength on which this estimate was based, in accordance with instructions from The Adjutant General's office of August 4, was:

Officers.....	17,717
Warrant officers.....	1,220
Enlisted men.....	280,000
Indian scouts.....	75
Total for the Army.....	299,012

And, in addition, Enlisted Reserve Corps, 50,000, for a training period of 15 days.

Nurses.....	1,600
Student nurses.....	300

The second phase, the estimates as above submitted reduced by the War Department to a total amount of \$287,936,833. The amount finally approved by the War Department as above provided funds for an approximate strength of 252,000 enlisted men.

Mr. ANTHONY. Is that the cut of 10 per cent that we have heard about?

Gen. ROGERS. I do not know just what the cut was, but it reduced funds so that we could take care of only 252,000 men.

Gen. LORD. I think the 252,000 men merely a coincidence. The reduction in the total estimates for pay of the Army was such as to reduce the Army to 252,000 men.

Mr. ANTHONY. You do not know upon what basis this estimate was reduced?

Gen. ROGERS. No, sir; I do not. [Reading:]

The third phase, the estimates for 280,000 enlisted men, were reduced by me in the amount of \$6,929,604, owing to recent declines in fuel and forage.

The fourth phase, estimates were prepared on verbal instructions from the Chief of Finance on a strength of 175,000 men, amounting in total to \$228,871,978.

I had no instructions in writing from the Secretary of War to furnish an estimate for 175,000 men, but Gen. Lord said that the committee desired that estimate.

Mr. ANTHONY. That last figure is based upon that number of men?

Gen. ROGERS. Yes, sir. [Reading:]

As will be observed from the figures given, the reduction made by the War Department in the original estimate for 280,000 men amounted to \$93,267,300. The estimates submitted for your consideration based upon 175,000 men represent a reduction of \$152,332,155 from the original estimates based on an Army of 280,000 men, and a reduction of \$59,064,855 from the amount approved by the War Department, which would have provided funds sufficient for an Army of approximately 252,000 men.

The estimate now presented to your committee based upon 175,000 men has been carefully scrutinized and checked by me after conferring with the several service and division chiefs of my office and represent the minimum amount which I consider essential to adequately supply the Army and to efficiently carry on the many activities in connection with supply and the quartering, care, and comfort of troops. Any material reduction in these figures will, of course, correspondingly reduce the efficiency and the promptness with which the Quartermaster Corps can supply, transport, and care for troops and protect, classify, and properly store Government property.

There are several pertinent reasons why the estimates under some appropriations appear to be larger than may be thought necessary, but as conditions actually exist, considering the price to be paid for various commodities, the amounts asked for are only sufficient to meet actual needs. No funds are included in this estimate under any appropriation to provide a reserve of any article of equipment. The cost of coal as estimated for the fiscal year 1922 as compared with the price used in computing the estimate for 1921 represents an increase of 125½ per cent for bituminous coal and 25½ per cent for anthracite, the estimates for 1921 being based on bituminous coal at \$3.42 and anthracite at \$6.50 per ton. It is possible that the prices on which these estimates are based, i. e., an average price of \$7.70 for bituminous coal and \$8.22½ for anthracite, may be lower by July 1 next, but from the latest information available it does not appear that any material reduction can be made. On December 10 the Shipping Board opened bids for 2,300,000 tons of bituminous coal, covering their annual requirements, bids received ranging from \$6.90 to \$11.50 f. o. b. mine, depending upon the location of mine, or an average of \$8.72 per ton. The average price upon which these estimates are based is, as previously stated, but \$7.70 per ton for bituminous coal.

The appropriation for clothing and equipage, while appearing large, is necessary to meet requirements under existing allowances. The present system of issuing clothing to enlisted men imposes an additional heavy cost because of the absence of a fixed and definite allowance. In addition legislation enacted by Congress requires the Quartermaster General to issue certain articles of clothing to honorably discharged enlisted men who did not draw clothing at the time of their discharge. Between the date of the armistice and April 30, 1919, The Adjutant General's office estimated there had been discharged 1,800,000 men who were under the law entitled to retain their uniforms. It is estimated that of the above number approximately 800,000 did not send their uniforms back, and therefore are equipped. Approximately 300,000 applications have been received and a full issue completed. Accordingly there remain approximately 700,000 to whom uniforms are yet to be issued. This feature is an important one in connection with the requirements of the Army relative to the cost of clothing. I bring this matter to your attention because of the heavy drain entailed upon Army appropriations and upon the limited personnel available to meet the situation authorized by law.

It not only takes a larger amount of clothing, but we have had to manufacture clothing on account of the sizes, and that applies also to shoes.

Mr. ANTHONY. The men who are entitled to uniforms have had quite a long period of time in which to put in their applications.

Would you suggest that there be a limit placed upon the time in which the men can exercise that right?

Gen. ROGERS. I certainly would like to have a time limit placed upon it.

Mr. ANTHONY. You think it should be cleaned up?

Gen. ROGERS. Yes, sir.

Mr. ANTHONY. What limit would you suggest?

Gen. ROGERS. The limit ought to be June 30 of this year. That would give them plenty of time. It not only takes the clothing we have to lose and issue to them, but it takes a large personnel to issue the clothing.

Mr. ANTHONY. Will you consider a proviso of that kind?

Gen. ROGERS. Yes, sir. [Reading:]

Any increase in the appropriations for clothing and equipage which may be reflected at this time by reason of this extraordinary condition is small compared to what will be required if the practice is continued. The total value of new clothing issued to discharged men to date is approximately \$6,700,000. Considering the fact that there will be 700,000 men that will have to be provided with various articles, and in some cases an entire outfit, it is safe to say that the amount required for the purpose will be about \$16,000,000—for this purpose alone, this in addition to the normal and regular requirements of the Regular Army.

The amounts asked for under "Army transportation" represent the actual needs based upon the experience of the present fiscal year. There will be a reduction in the number of transports operated during the fiscal year 1922, and this has been considered in our estimates. The estimate covering movement of troops and supplies is based upon past experience and the purposes for which asked are not, of course, under my control. The movement of troops is a matter of War Department policy and I am, therefore, not in a position to recommend that any reduction can be made under these headings.

In the appropriation "Barracks and quarters," there is very little asked for new construction; most of the estimate covers maintenance only. Little or no repair work has been done at camps and permanent garrisons since the war, and much deterioration has resulted. It would be false economy, if these posts and camps are to be continued, not to provide funds for necessary repairs.

I desire to invite particular attention to the fact that the estimates submitted for 175,000 men have been reduced by me approximately \$16,500,000 from the amounts originally prepared in my office. By figuring the cost of the ration at \$0.42 instead of \$0.54, I was able to make a reduction of more than \$7,000,000 in subsistence alone. By figuring hay at \$1.69 per hundredweight instead of \$1.92, and oats at \$2.70 per hundredweight instead of \$3.72, I made a total reduction of approximately \$4,000,000, in the item of forage. The present estimate for forage is based on the average cost of hay and oats during the past year. By figuring bituminous coal at \$7.70 instead of \$8.75 and anthracite at \$8.22½ instead of \$13, I was able to make a reduction of \$2,566,080 in the item of fuel. I also made a cut of \$1,225,000 in the estimate for shoes; the price at which shoes were figured was \$6.75 per pair.

We have purchased shoes since, at a lower rate and I am convinced that we will be able to procure shoes at an average of \$5 per pair. We had in the original estimate an item of \$780,000 for bedsteads, which I have eliminated for the reason that we have sufficient steel cots on hand to supply our needs, and they should in my judgment be utilized until they become unserviceable. In addition, cuts have been made by me in numerous other articles and activities. As previously stated, these reductions amount to approximately \$16,500,000.

The estimate for the current fiscal year as submitted by my office was for an Army of 175,000 men. The estimate was reduced by Congress 37.9 per cent, and the Army increased by approximately 30 per cent, and in consequence the appropriations available are only about 50 per cent of the amounts considered necessary for Army maintenance. An earnest effort has been made to operate within the appropriations made available, and many necessary and essential activities have been suspended. Requisitions for supplies have been cut to the minimum from time to time and every effort made to utilize all available stock, even to the extent of substitution, so as to avoid the incurring of a deficiency,

but conditions are such that it will not be possible to get through the present year with the funds appropriated.

It is my judgment that approximately \$87,000,000 for our activities in addition to the appropriations made for the present fiscal year will be required to carry on the supply of troops and the necessary activities incident thereto during the remainder of the current year.

Mr. ANTHONY. Is that in addition to their pay?

Gen. ROGERS. Just the quartermaster activities; yes, sir.

Mr. ANTHONY. It is figured that there will be that much deficiency?

Gen. ROGERS. Yes, sir. [Reading:]

I have effected a material reduction in the cost of civilian employees. The total cost of employees, in what was known as the P. & S. Service, including the Transportation Service, Construction Service, and Motor Transport Corps, at the time hearings on estimates for the fiscal year 1921 were held (about April or May, 1920) was \$85,770,011.80. Reduction has been made since July, 1920, of \$24,785,970.51, the cost being \$60,984,041.39 for all of the services named, now a part of the Quartermaster Corps. A further reduction of \$24,000,000 is reflected in the estimate for 1922. Similar reductions have been made along other lines. I mention this to impress upon the committee the fact that the Quartermaster Corps is making every endeavor to curtail expenditures and reduce Army costs, and the estimates now presented to you reflect that policy. Therefore, any reduction made by the committee will, it is believed, result in a deficiency estimate being submitted toward the close of the fiscal year 1922.

CONSOLIDATION OF ACTIVITIES.

Mr. ANTHONY. At the conclusion of your statement, General, you spoke of the economies that have been effected by reason of the consolidation of various activities in the Quartermaster Corps.

Gen. ROGERS. Yes, sir.

Mr. ANTHONY. You have proceeded far enough with the work of consolidation to say that you have effected a real saving?

Gen. ROGERS. There is no question about that. This is as close a figure as I can give of the actual saving under those conditions.

Mr. ANTHONY. You found that there was a duplication of activities?

Gen. ROGERS. Yes, sir.

Mr. ANTHONY. In making up these estimates, does the Quartermaster General, as the business end of the War Department, exercise his judgment on the quantities of materials that are necessary to be purchased during the next fiscal year, or do you receive an order to arbitrarily purchase so much of this or that?

Gen. ROGERS. Our purchases are dependent upon the tables of organization and the lists of supplies that the soldiers are supposed to have with them. We figure on that date as furnished by the General Staff.

Mr. ANTHONY. You say that in making up these figures you made no provision whatever for reserve material of any kind?

Gen. ROGERS. No, sir; no provision is made for any reserve to take care of an Army of 175,000 men. Of course, we have a large stock on hand of many articles left over from the war.

Mr. ANTHONY. That brings up that question, and Congress will undoubtedly want to know what reserve supplies of material the Quartermaster Corps has on hand available for use.

Gen. ROGERS. Yes, sir; left over from the war.

Mr. ANTHONY. Have you a statement that will show that?

Gen. ROGERS. I have not one with me, but I can have one prepared. Do you mean with reference to clothing, equipment, and supplies of that kind?

(The statement appears under the heading of "Clothing, camp and garrison equipage.")

CLOTHING, SHOES, ETC.

Mr. ANTHONY. Yes. What have you on hand in the way of clothing and uniforms?

Gen. ROGERS. We have quite a large stock on hand, but the clothing, unfortunately, is in large sizes. During the war the Quartermaster Corps was overstocked with large sizes, so that since the war we have had to purchase quite large quantities of small sizes. That has been especially true of coats, breeches, shoes, and also of overcoats.

Mr. ANTHONY. I am surprised at that statement. It was my understanding that, for instance, in the case of shoes, the sizes that were furnished by the contractors were too small, as a rule.

Gen. ROGERS. The first thing I had to do when I came back from France was to commence buying small sizes of shoes.

Mr. ANTHONY. What do you do with this surplus clothing that is too large? Can you work it over?

Gen. ROGERS. The best that we can do with the large size clothing is to keep it in reserve, because it is so hard to get clothing on short notice. We had that trouble during the war.

Mr. ANTHONY. Is it your present plan to keep those uniforms?

Gen. ROGERS. I have not recommended the disposal of any uniforms at all. We have only sold reclaimed uniforms.

Mr. ANTHONY. How many uniforms does the department now possess?

Gen. ROGERS. I can not tell that without looking it up.

Mr. ANTHONY. You may insert a statement in the record covering that.

Gen. ROGERS. I will do so.

(The statement appears under the heading of "Clothing, camp, and garrison equipage.")

Mr. ANTHONY. What is the present plan of the department with regard to uniforms or uniform material?

Gen. ROGERS. I can not answer that. My understanding is that all uniforms or uniform material will be kept. We have only disposed of material that was unsatisfactory or of poor quality, or the cloth for uniforms and blouses of poor quality.

Mr. ANTHONY. So we have a large amount of Army uniforms?

Gen. ROGERS. A large amount of uniforms, and there is also a large amount of cloth that we can use for uniforms.

Mr. ANTHONY. You can furnish a statement of the amount of cloth you have on hand and the number of uniforms.

Gen. ROGERS. Yes, sir.

Mr. ANTHONY. And you can state the plan of the War Department as to the amount of uniform material to be kept in reserve.

Gen. ROGERS. Yes, sir.

(The statement appears under the heading of "Clothing, camp, and garrison equipage.")

COST OF COAL.

Mr. ANTHONY. You spoke about the very high price that you are compelled to pay for coal for the Army?

Gen. ROGERS. Yes, sir.

Mr. ANTHONY. I have a letter here from Senator Calder, of New York, who is the chairman of a Senate committee which has been investigating the coal situation, in which the recommendation is made that this language be included in the appropriation bill:

Provided, That hereafter, when, in the opinion of the Quartermaster General, it is in the interest of the United States so to do, he is authorized to enter into contracts and to incur obligations for fuel, forage, subsistence, and clothing in sufficient quantities to meet the requirements for one year without regard to the current fiscal year; and payments for supplies delivered under such contracts may be made from funds appropriated for the fiscal year in which the contract is made, or from funds appropriated or which may be appropriated for such supplies for the ensuing fiscal year.

Gen. ROGERS. I was going to take that up with you, and it will be my recommendation that that provision be included in the bill.

Mr. ANTHONY. What is the object of that? Is it in order to give you an opportunity to use the appropriation for two fiscal years?

Gen. ROGERS. No, sir; the reason for it is this: Under the present law we are not able to make a contract beyond the end of the fiscal year. In other words, I would like to make contracts for coal at the time the operators of the mines make their wage scales with the miners. In other words, I want to adopt the practice that is followed in commercial life; that is, to make the contracts at the time the operators find out what they have to pay the miners the next year. Their year begins, I think, about the 1st of March. At that time the wage scale is settled for the year. If the Government could make its contracts at that time, it would take in three months of the fiscal year, or it would take that much of the fiscal year into the operations at that time, and nine months of the next fiscal year.

Mr. ANTHONY. Senator Calder estimates that the War Department lost \$6,000,000 in its coal purchases alone during the present fiscal year by reason of their inability to take advantage of a market of that kind.

Gen. ROGERS. I can not say about that, but I know that it will be in the interest of the Government to have that provision in the bill so as to make it possible to handle the Government's business in the same way that business is handled in commercial life.

Mr. ANTHONY. Where does the Army use its largest amount of coal—in the transport service?

Gen. ROGERS. The transport service uses the largest single amount, but, of course, all of the large posts use a good deal of coal.

Mr. ANTHONY. In making your purchases of coal during the past year did you find a uniformity of price over the country; that is to say, were all of them uniformly high, or were there some contracts that were reasonable and others not reasonable?

Gen. ROGERS. That depended upon the time at which the purchases were made. Of course, they were made at a time when everything was very high. Then, the locality has something to do with it. In making purchases of coal, it is much more easily done, and always—

has been, in the West and Southwest than elsewhere. It is harder to purchase coal for consumption in the East and in the New England States, and also in Pennsylvania and New York. It is harder to buy coal in those localities than in the West.

Mr. ANTHONY. What was the increase in the price of bituminous coal in the present year over the year before?

Gen. ROGERS. The increase in the present year is 125 $\frac{1}{4}$ per cent for bituminous coal and 25 $\frac{1}{2}$ per cent for anthracite coal over last year.

Mr. ANTHONY. Was that general all over the country?

Gen. ROGERS. That is our average. At some places it was less, and at others higher, but that was the average over the year.

Mr. ANTHONY. Was there ever any talk in the War Department of commandeering coal?

Gen. ROGERS. Yes, sir.

Mr. ANTHONY. Why was that step not taken?

Gen. ROGERS. I can not tell you. I recommended that it be commandeered, as the Navy commandeered their coal.

Mr. ANTHONY. Has the Navy settled for the coal it commandeered?

Gen. ROGERS. I can not tell you.

Mr. ANTHONY. General, there will probably be some other members of the committee who will wish to ask you some further questions.

Gen. ROGERS. Col. Hannay has immediate charge of the estimates and he can give you the details better than I can.

SUBSISTENCE OF THE ARMY.

(See p. 511.)

Mr. ANTHONY. Colonel, the estimates submitted by the War Department call for \$64,490,895, for subsistence of the Army during the next fiscal year, and you were allowed \$32,000,000 for the current fiscal year. How much of a deficiency was there, or will there be in that item?

Col. HANNAY. \$32,000,000.

Mr. ANTHONY. In revising your estimate for an Army of 175,000 men as against an Army of 280,000 enlisted men, on which this estimate was based, how much of a reduction were you able to work out?

Col. HANNAY. Our estimate for 280,000 men is \$64,000,000, in round numbers, and our estimate for 175,000 men is \$36,000,000, in round numbers.

Mr. ANTHONY. If the Army should be reduced or increased, could the item for subsistence be reduced or increased in proportion to the number of men mathematically?

Col. HANNAY. Not quite, because there are certain constants that we have to take into consideration.

Mr. ANTHONY. Are the constants very large in the item of subsistence?

Col. HANNAY. Well, most of these items, except the first, are more or less constants. Of the \$36,000,000 two-thirds, I might say, are flexible to the degree that you could reduce them in proportion, and one-third is practically a constant.

COST OF RATION.

Mr. ANTHONY. What is the cost of the ration so far during the present year?

Col. HANNAY. That has varied.

Mr. ANTHONY. Give it to us for a year ago, and then give it to us for the present.

Col. HANNAY. In 1919 the cost of the ration was 49.75 cents, and in 1920 it was 51.46 cents; there has been a gradual reduction from 55.67 cents to 50.60 cents, between April and October of the present year, and we have reduced it in these estimates presented to you to 42 cents.

Mr. ANTHONY. You are just taking a chance on being able to get through the year on that basis?

Col. HANNAY. Yes, sir. That is the lowest figure the Quartermaster General believes he could get the ration for, according to the present outlook.

PRICE OF FOODSTUFFS.

Mr. ANTHONY. Has the Army made any recent contracts for food?

Col. HANNAY. We are constantly making purchases.

Mr. ANTHONY. Could you give us a few prices that the Army is now paying?

Maj. ADAMS. Flour is about 4.6 cents.

Mr. ANTHONY. Per pound?

Maj. ADAMS. Yes, sir.

Mr. ANTHONY. As compared with a price of how much a year ago?

Maj. ADAMS. $5\frac{1}{2}$ and 5.7 cents.

Mr. ANTHONY. Is that a proportionate reduction according to the shrinkage that has occurred in the price of wheat?

Col. HANNAY. Practically; yes, sir.

Mr. ANTHONY. The price of wheat has gone down about 70 per cent, has it not?

Maj. ADAMS. The price of flour for the next quarter will be a little less.

Mr. ANTHONY. But the price you say you are paying for flour does not show any such reduction as that.

Maj. ADAMS. That is the price we paid in December.

Mr. ANTHONY. You have not bought any flour in January?

Maj. ADAMS. No, sir.

Mr. ANTHONY. The price of wheat in December was 70 per cent less than it was a year ago, so approximately how much less were you paying for flour in December?

Maj. ADAMS. We paid 4.6 cents in December for flour and for one or two minor purchases a little less; it depends on where it is purchased. The reduction has been approximately 20 per cent.

Mr. ANTHONY. But the great reduction in the price of the raw material has not yet reached the finished article.

Maj. ADAMS. That is right.

Mr. ANTHONY. What is the Government contract price for beef now and what was it a year ago?

Maj. ADAMS. We are buying beef at a price ranging from $15\frac{1}{4}$ to 17 cents a pound at present.

Mr. ANTHONY. What did you pay for beef a year ago?

Maj. ADAMS. 22 and 23 cents.

Mr. Sisson. Do you buy the whole carcass?

Maj. ADAMS. The quarters.

Mr. Sisson. You do not buy the whole carcass but you buy it by quarters?

Maj. ADAMS. Yes, sir.

Gen. ROGERS. The hind quarters and the fore quarters.

Mr. CRAMTON. The figures you are giving in answer to the chairman's questions represent deliveries in December. What time were the contracts made, or do they relate to contracts made in December?

Maj. ADAMS. They relate to purchases made on advertisements early in December for delivery during the month, to cover the third quarter.

Mr. CRAMTON. So they were contracts made during December?

Maj. ADAMS. Yes, sir.

Mr. ANTHONY. Are the prices you are now paying higher than the current market prices?

Maj. ADAMS. They are some higher; yes, sir.

Mr. ANTHONY. Does the Government demand an extra high grade of beef for which it is willing to pay a higher price than the wholesale price?

Maj. ADAMS. Yes, sir.

Mr. ANTHONY. Do you think that is necessary?

Maj. ADAMS. It is a matter of conservation.

Mr. ANTHONY. Why is it, with the price of beef on the farm having gone down fully 100 per cent over last year, that the Government does not get the advantage of that reduction in the price of beef?

Maj. ADAMS. That is rather difficult to answer. We are getting it at the best price obtainable.

Mr. ANTHONY. Do you mean it is because there is a combination among the packers?

Maj. ADAMS. I am not in a position to say about that.

Mr. ANTHONY. Is there any wide range in the bids that the department receives?

Maj. ADAMS. They are apparently very close.

Mr. Sisson. Do you buy directly from the packers?

Maj. ADAMS. We have our various depots that do the actual buying, depending on the localities of the country, and they buy directly from the packers.

Mr. Sisson. In what quantities do you usually buy beef?

Maj. ADAMS. It depends on the strength of the force and the probable amount to be consumed.

Mr. Sisson. I understand that, but I am trying to get some idea about the size of an order, ranging from the smallest order you place to the largest order. Can you tell what that would be?

Maj. ADAMS. Well, some individual purchases run to fifty or sixty thousand pounds a month, but at the larger camps, of course, much more; approximately from 12 to 13 ounces per man per day.

Mr. Sisson. That is one delivery that they make for a month?

Maj. ADAMS. No, sir; at various times during the month.

Mr. Sisson. How often do they deliver beef?

Maj. ADAMS. That depends on the call of the quartermaster at the consuming station.

Mr. Sisson. What I am endeavoring to arrive at, if possible, is whether or not the beef is delivered in such quantities that the refrigeration may be preserved at the least expense to the packers in the delivery. Of course, that makes a great deal of difference in the price of beef, the quantities which you buy. In other words, if you could buy a car or a section of a car which could be refrigerated you would save money by doing it, and I wondered whether you purchased your beef with reference to the economy of refrigeration, which costs quite a good deal.

Maj. ADAMS. In a fully garrisoned camp they take it in car lots, and one or two, depending on the number of cars they can hold economically at that station.

Mr. Sisson. I do not see, then, why you should not get beef at the minimum wholesale cost, because you find very few butchers who will buy beef in larger quantities than you buy it.

Maj. ADAMS. Very few.

Mr. Sisson. You take the smallest quantity of beef you buy, 40,000 or 50,000 pounds; there are not many butchers in the cities or in the smaller towns who would buy that much at one time; therefore, you ought to get your beef a little cheaper, it seems to me, than the trade gets it.

Mr. ANTHONY. Colonel, I wish you would put in the record a statement showing the prices you paid for beef and for flour during the last calendar year, month by month, with a comparison of the prices of the raw material. If you can, I wish you would put in the record the market price of wheat during those months and the market price of the grade of animals from which your beef comes.

Maj. ADAMS. During the past calendar year?

Mr. ANTHONY. Yes; up to the first of this year.

Report showing comparative prices, market and Government, for the calendar year 1920.

Month.	Market price, steers.	Government price, beef, fresh.	Market price, wheat.	Government price flour
	Pounds.	Pounds.	Pounds.	Pounds.
January.....	\$0.1612	\$0.205	\$0.0455	\$0.017
February.....	.1328	.2043	.0417	.017
March.....	.1297	.197	.0439	.017
April.....	.1337	.192	.0453	.017
May.....	.124	.184	.0534	.017
June.....	.1501	.1853	.0498	.017
July.....	.1528	.189	.0446	.017
August.....	.1524	.192	.0431	.017
September.....	.1575	.1896	.0439	.017
October.....	.1538	.185	.0379	.017
November.....	.1325	.18	.0346	.017
December.....	.111	.176	.0341	.017

BEEF REQUIREMENTS FOR THE ARMY.

Army specifications require kidneys, kidney fat, skirt, sweetbread, heart fat, and surplus pelvic fat to be removed; the neck to be cut off at right angles to the line of the vertebrae, leaving but three cervical vertebrae on the carcass. The shank on the fore quarter to be cut off 2 inches above the anatomical knee joint; the shank on the hind quarter to be cut off at the hock joint and to compensate for the shank bone, thus allowed to remain, 3½ pounds will be deducted.

from the net weight of each hind quarter. No carcass to weigh less than 435 pounds nor more than 700 pounds when trimmed, and the difference between the weight of fore and hind quarters shall not exceed 25 pounds in the same carcass.

Our soldiers are entitled to 20 ounces of meat per day. Owing to the large quantity of bone in beef cattle these trims are necessary to lessen the quantity of bone issued the soldier and to give him the maximum quantity of actual meat.

Mr. CRAMTON. And in addition to that the current prices you are paying for the main items of subsistence. I do not care to have that go back through the year, but the current prices of the chief items you are buying.

Statement showing current prices paid for food items.

Articles.	Unit.	Price.	
		Mini- mum.	Maxi- mum.
Baking powder, 1-pound cans.....	Can.....	\$0.167	
Hominy, coarse.....	Pound.....	.0325	
Hominy, grits, fine, 2-pound containers.....	Container.....	.09	
Rice.....	Pound.....	.051	
Fish:			
Dried, cod, in bricks.....	do.....	.2149	
Salmon, 1-pound cans.....	Can.....	.2475	
Pork, salt, in barrels.....	Pound.....	.185	
Turkey, fresh.....	do.....	.549	
Butter:			
Issue, in prints.....	do.....	.48	\$0.55
Issue, in tubs.....	do.....	.426	
Issue, 5-pound cans.....	do.....	.5287	
Oleomargarine, in prints.....	do.....	.2413	.2644
Nutmegs, whole.....	do.....	.235	
Tea:			
Black, 1-pound cans.....	Can.....	.61	
Green, 1-pound cans.....	do.....	.78	
Flavoring extract, vanilla:			
2-ounce bottle.....	Bottle.....	.26	
8-ounce bottle.....	do.....	.65	
Flour, wheat (issue).....	Pound.....	.0368	
Cornmeal:			
White, in sacks.....	do.....	.0275	
Yellow, 5-pound cans.....	do.....	.0973	
Flour, graham.....	do.....	.0409	
Lard:			
Issue, 20-pound or 60-pound cans.....	do.....	.1575	
Substitute, 20-pound or 60-pound cans.....	do.....	.1272	
Potatoes, Irish, fresh.....	do.....	.0175	.0242
Onions, fresh.....	do.....	.0125	.0233
Prunes:			
25-pound or 50-pound boxes.....	do.....	.128	.145
5-pound cans.....	do.....	¹ .20	.22
Apples, evaporated, 5-pound cans.....	do.....	¹ .22	
Apricots, evaporated, 5-pound cans.....	do.....	¹ .268	
Jam, assorted, No. 2 cans.....	Can.....	.329	
Pears, evaporated, 5-pound cans.....	Pounds.....	¹ .186	
Salt, in sacks or barrels.....	do.....	.0104	
Sugar, granulated, sacks or barrels.....	do.....	.079	
Vinegar.....	Gallon.....	.40	
Apple butter:			
No. 2½ cans.....	Can.....	.2875	
No. 10 cans.....	do.....	.868	
Apples:			
No. 3 cans.....	do.....	.15	.16
No. 10 cans.....	do.....	.415	
Bacon, breakfast:			
In boxes.....	Pound.....	.285	.3782
Sliced, No. 1 cans.....	Can.....	.4375	
Sliced, jars.....	Jar.....	.39	
Beans:			
Stringless, No. 2 cans.....	Can.....	.09	.142
Lima, No. 2 cans.....	do.....	.1875	.21
Beef, dried, sliced.....	Jar.....	.35	

¹ Overseas.

Statement showing current prices paid for food items—Continued.

Articles.	Unit.	Price.	
		Mini- mum.	Ma- ximum.
Boullion cubes.....	Tin.....	\$0.1475	
Butter, sales, 1 or 2 pound prints.....	Pound.....	.4825	\$0.545
Candy:			
Chocolate, 1-pound boxes.....	Box.....	.63	1.008
Stick or cur stick, 1-pound boxes.....	do.....	.45	
Capers:			
About 4-ounce bottles.....	Bottle.....	.20	
About 8-ounce bottles.....	do.....	.22	
Cheese:			
Camembert, about 4-ounce cans.....	Can.....	.22	
Edam.....	Each.....	1.50	
American Cheddar.....	Pound.....	.2572	.2696
Pimento, about 4-ounce cans.....	Can.....	.14	
Cherries, Maraschino, about 1½-pound bottle.....	Bottle.....	.74	
Chicken, No. 1 cans.....	Can.....	.926	
Potted, about 6-ounce cans.....	do.....	.4315	
Chili con carne, No. 1 cans.....	do.....	.125	
Chocolate, plain, ½-pound packages.....	Package.....	.192	
Chocolate, vanilla:			
Sweetened, ½-pound packages.....	do.....	.262	
Cider, sweet, quart bottles.....	Bottle.....	.265	
Cinnamon, whole, 4-ounce cartons.....	Carton.....	.0725	
Citron.....	Pound.....	.70	
Cocoa, ½-pound containers.....	Container.....	.21	
Coconut, shredded, about 1-pound container.....	do.....	.267	
Cornflakes.....	Package.....	.098	
Crackers:			
Fancy, assorted varieties.....	Carton.....	.14	
Ginger, 4-ounce carton.....	do.....	.07	
Ginger, in boxes.....	Pound.....	.24	
Graham, 3 ounce carton.....	Carton.....	.135	
Soda, 4-ounce cartons.....	do.....	.14	
Cream, evaporated, about 7½-ounce cans.....	Can.....	.22	
Cream of tartar.....	Package.....	.165	
Cream of Wheat.....	do.....	.24	
Currants, 1-pound containers.....	Container.....	.30	
Crab meat, No. 1 can.....	Can.....	.74	
Dates.....	Package.....	.164	
Farina, 1-pound cartons.....	Carton.....	.1496	
Figs, dried.....	Package.....	.24	
Fish flakes, about 14-ounce cans.....	Can.....	.104	
Fish:			
Tuna, No. ½ cans.....	do.....	.26	
Tuna, No. 1 cans.....	do.....	.41	.453
Flour:			
Pancake.....	Carton.....	.093	
Wheat, patent (family).....	Pound.....	.06	.071
Gelatin, dessert powder, 3½ ounces.....	Package.....	.0925	
Ginger, crystallized, ½-pound boxes.....	Box.....	.36	
Grape juice:			
Pint bottles.....	Bottle.....	.25	
Quart bottles.....	do.....	.48	
Ham:			
Deviled, ½-pound cans.....	Can.....	.1475	
Deviled, 1-pound cans.....	do.....	.265	
Sugar-cured.....	Pound.....	.231	.24
Jelly:			
Currant, No. 2 cans.....	Can.....	.284	.3579
Strawberry, No. 2 cans.....	do.....	.4275	
Assorted No. 1 cans.....	do.....	.1975	
Lard, sales, 5-pound cans.....	Pound.....	.20	
Lentils, dried.....	do.....	.103	
Macaroni, 1-pound cartons.....	Carton.....	.109	1.10
Milk:			
Condensed, sweetened, 1-pound cans.....	Can.....	.218	.229
Malted, about 16-ounce bottles.....	Bottle.....	.42	
Mustard, prepared, 3-ounce bottles.....	do.....	.085	
Noodles, in cartons.....	Carton.....	.114	
Oatmeal.....	do.....	.29	
Oats, rolled:			
About 22-ounce cartons.....	do.....	.114	
2-pound cans.....	Can.....	.1725	
Oil, cooking, pint cans.....	do.....	.29	
Olives:			
Pickled, about 1-pint bottles.....	Bottle.....	.34	
Green, stuffed, about 1-pound bottles.....	do.....	.32	

Statement showing current prices paid for food items—Continued.

Articles.	Unit.	Price.	
		Mini- mum.	Maxi- mum.
Onions, pickled, 8-ounce bottles.....	Bottle.....	\$0. 199	.....
Pickles, mixed, pint jars.....	Jar.....	. 37	.....
Potatoes, sweet, No. 3 cans.....	Can.....	. 1290	.....
Preserves:			
Cherry, No. 1 cans.....	do.....	. 264	.....
Peach, No. 2 cans.....	do.....	. 48	.....
Strawberry, No. 1 cans.....	do.....	. 2925	.....
Raisins, about 15-ounce cartons.....	Carton.....	. 25	\$0. 2675
Sago, 1-pound cartons.....	do.....	. 17	.....
Salmon steaks, 1-pound cans.....	Can.....	. 33	. 41
Sauce:			
Chili, 12-ounce bottles.....	Bottle.....	. 36	.....
Tomato ketchup, pint bottles.....	do.....	. 18	.....
Sauerkraut, No. 2½ cans.....	Can.....	. 125	.....
Sausage:			
Pork, 2-pound cans.....	do.....	. 4375	.....
Vienna style, 2-pound cans.....	do.....	. 429	.....
Shredded wheat.....	Package.....	. 1225	.....
Shrimp, No. 2 cans.....	Can.....	. 374	.....
Sirup, maple, quart cans.....	do.....	1. 00	.....
Soap:			
Castile.....	Cake.....	. 0345	.....
Hand grit.....	do.....	. 0566	.....
Powder, 1-pound cartons.....	Carton.....	. 088	.....
Powder, 4-pound cartons.....	do.....	. 2744	.....
Toilet, Cashmere bouquet.....	Cake.....	. 172	.....
Toilet, Coleo.....	do.....	. 174	.....
Toilet, glycerin.....	do.....	. 09	.....
Toilet, oatmeal.....	do.....	. 076	.....
Toilet, tar.....	do.....	. 119	.....
Soda, washing, about 2-pound cartons.....	Carton.....	. 0755	.....
Spaghetti, 1-pound cartons.....	do.....	. 159	.....
Spinach, No. 2½ cans.....	Can.....	. 1575	.....
Squash, No. 2½ cans.....	do.....	. 133	.....
Starch:			
Corn, 1-pound packages.....	Package.....	. 075	.....
Laundry, 1-pound packages.....	do.....	. 074	.....
Sugar:			
Brown, in bulk.....	Pound.....	. 09	.....
Cube, cut or domino, 2-pound cartons.....	Carton.....	. 2246	.....
Soup, assorted, No. 1 cans.....	Can.....	. 105	.....
Tapioca, 1-pound cartons.....	Carton.....	. 1675	.....
Tobacco, chewing.....	Pound.....	. 62	.....
Turkey, No. 1 cans.....	Can.....	. 49	.....
Vinegar, pint bottles.....	Bottle.....	. 167	.....
Wheat, puffed.....	Package.....	. 108	.....

PURCHASING AGENCIES.

Mr. SLEMP. Do you have one central purchasing agency which buys the supplies of the Army?

Maj. ADAMS. We have not; no, sir. The purchases are made at each of the various depots—Boston, New York, Atlanta, Norfolk, New Orleans, Chicago, St. Louis, Omaha, Fort Sam Houston, San Francisco, and Seattle.

Mr. SLEMP. What check would the Quartermaster's Department have on the supplies purchased at particular stations?

Maj. ADAMS. We receive a copy of the daily statement of awards which shows the prices that are paid and the grade of goods which they buy.

Mr. SLEMP. Is the Quartermaster's Department active in checking up to see whether there was a mistake made by these representatives?

Maj. ADAMS. We take positive steps to see that they buy correctly and that no abnormal purchases are made or at abnormal prices.

Mr. SLEMP. Do you feel that you could, by concentrating your purchases in one office, save money, on account of the quantities you would buy?

Maj. ADAMS. That would lead to considerable economy.

Mr. SLEMP. You would know pretty well about the number of pounds of beef you wanted during the coming year, based on the number of men, the number of pounds of flour, and so on, and then some of that could go to Boston and some to Chicago, and I think you could save money by having that plan adopted.

Maj. ADAMS. There is a positive saving in centralized buying.

Mr. SLEMP. Why is it you do not have that?

Col. HANNAY. I would like to answer that. We have not the personnel, and I do not believe we could ever get from Congress sufficient personnel, under the L., E., and J. bill, to carry on centralized procurements. That requires a very large personnel.

Mr. SLEMP. Would you need any more personnel than you now have?

Col. HANNAY. A very much larger personnel; yes.

Mr. SLEMP. Why?

Col. HANNAY. Because the contracts would be enormous, the total of them, and would cover every little station, post, and point of delivery over the country and foreign possessions.

Mr. SLEMP. That is what you have now?

Col. HANNAY. Yes, sir; but we have a field force that does that, but which is not provided in the office force of the War Department. The law does not permit us to bring that field force into Washington to do that kind of work.

Mr. SLEMP. You would want a report as to how many pounds of beef would be required at Boston, Chicago, and at the other places, and then you could contract for so many million pounds of beef, and if that were done why would it require a larger office force? Why would you need a larger office force to handle 40,000,000 pounds of beef than for 1,000,000 pounds?

Col. HANNAY. There has been constant objection to that because it debars the small producer from bidding on Government business, and every time the Government has attempted to take that up there has been a protest against it, the claim being that it would throw the business to the big men, who would be liable to control the prices. At the present time, in the procurement of large quantities, we have the benefit of the competition of the small producers, which, I believe, has an effect on the large producers.

Mr. SLEMP. Your point is that it would not give the small producer who has stuff to sell an opportunity to sell it to a local post?

Col. HANNAY. That is the point exactly, while at present the small producer, who has a small factory, has a chance to compete.

Mr. Sisson. The small packing house would not get an opportunity to bid, because the contracts would be so large that the small producers, where these institutions are located, would not be able to satisfy them. Then his other complaint is one which is a very just one, perhaps, and reflects upon those of us who have charge of the L., E., and J. bill, as he calls it; that is, that he would have to have an office force here large enough to keep books against all of the other camps throughout the United States and keep an accurate account here. Under the present system a certain amount of beef, we will

say, is bought for Fort Sam Houston, and the only bookkeeping he has to do here is to send the money there to pay for it; then he gets a report from Fort Sam Houston as to how it is spent. But if you put it all here you would have to multiply the number of clerks many fold to keep up with the flour, meat, bacon, and so on.

Gen. ROGERS. In connection with the question that was asked a few minutes ago, we are very much handicapped, and have been ever since the consolidation of the Quartermaster Corps, by a lack of personnel in the city of Washington, and for that reason we have had to decentralize to a great extent, and much more than we would like to have decentralized. My judgment in the matter is that certain commodities should be purchased by a central purchasing agency, but only a certain number, and some should be purchased outside. But with the present force of clerks—and it is no fault of mine that we do not have more—it has been impossible for me to carry out the method of purchasing that I would like to carry out. I hope the L. E. J. bill will give us the addition of clerks which we have asked for.

Mr. SLEMP. Let us take the case of coffee, which is not produced in the United States. How would you handle its purchase?

Gen. ROGERS. The coffee should be purchased in Washington.

Mr. SLEMP. Is it?

Gen. ROGERS. I think it is purchased by the depots at the present time. That is something that we could not do with the present force of clerks. My whole transportation service, practically, is run by an office in Hoboken, and the Government is losing a large amount of money on account of it.

Mr. ANTHONY. That is because when these services were added to your corps, or consolidated with it in the reorganization bill, the legislative bill failed to provide you with the same clerks that these separate departments had at the time of the consolidation?

Gen. ROGERS. They did not give us enough clerks. We have not only had to have the transportation service separate from my office but we have also had to decentralize the sale of surplus property, which has been another loss to the Government, and a very severe loss, because we have not clerks enough to handle the sale of surplus property. Then the construction service has had to be decentralized.

SUBSISTENCE OF THE ARMY.

(See p. 503.)

Mr. ANTHONY. Have you prepared an itemization of the estimate for subsistence?

Col. HANNAY. We have; yes.

Mr. ANTHONY. Similar to the one that was placed in the hearings last year?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Will you put it in the present hearings?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Last year you gave us that information based on an Army of different sizes, and now you have it based, as I understand, on an Army of 280,000 and 175,000?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Would it be much trouble to also add the figures for 150,000?

Col. HANNAY. No, sir; we can give you that by approximation, just as we did last year.

Mr. ANTHONY. That is what we would like to have.

Col. HANNAY. But it is not very accurate when it is done that way.

Mr. ANTHONY. I want the figures in that way because those will probably be the three sizes that will be considered.

Col. HANNAY. In all of these items, as before stated, we have reduced the amount that we have asked to the minimum at which, as far as we can see at present, we can procure the supplies for the ensuing fiscal year.

Mr. ANTHONY. You buy the subsistence for the entire Army?

Col. HANNAY. Yes, sir; everything.

PURCHASES FOR THE WEST POINT ACADEMY.

Mr. ANTHONY. Do you buy the subsistence for West Point also?

Col. HANNAY. Yes, sir; although, of course, they buy a number of their supplies directly there. It is all done through the Quartermaster Corps, though.

Mr. ANTHONY. They have a local quartermaster who augments your service?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Those supplies are purchased out of money allowed for the commutation of rations?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. That is all fixed in the bill at \$1.08 per ration?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Is that the same amount as was carried last year?

Col. HANNAY. Yes, sir; that is the amount to which it was increased by this committee.

Mr. ANTHONY. Does the necessity for continuance at that figure exist now?

Col. HANNAY. We are figuring on the same price this year.

Mr. ANTHONY. In the event that there is a very material reduction in the cost of food would it not be reasonable to think you could lower that price?

Col. HANNAY. Yes, sir; I believe we could.

Mr. ANTHONY. What was it before we made that increase to \$1.08?

Col. HANNAY. I think it was about 80 cents, but I can put that in the hearing.

Mr. ANTHONY. I wish you would.

Col. HANNAY. Very well.

Amount authorized in previous appropriation acts for rations for West Point cadets.

Fiscal year.	Cost of ration.	Amount authorized for Military Academy.	Authority.
1916.....	\$0. 28	30 cents per ration.....	Act of Mar. 4, 1915.
1917.....	. 33	40 cents per ration.....	Act of Aug. 29, 1916.
1918.....	. 48	.....do.....	Act of May 12, 1917.
1919.....	. 4975	68 cents per ration.....	Act of July 9, 1918.
1920.....	. 5146	.....do.....	Act of July 11, 1919.
1921.....	. 54	\$1.08 per ration.....	Act of June 5, 1920.

The amount of \$1.08 per day authorized by act of June 5, 1920, covers the cost of the food, the cost of its preparation, and the cost of its service.

One dollar and eight cents was authorized on recommendation of a board of officers convened in compliance with instructions contained in paragraph 2, Special Orders No. 16-O, War Department, January 20, 1920, the proceedings of which are published on pages 40 to 51, hearings on Military Academy appropriation bill, fiscal year 1920-21.

Mr. ANTHONY. Is practically all of that commuted?

Col. HANNAY. That is paid in commutation, I believe.

Mr. ANTHONY. All of it?

Col. HANNAY. Yes. The West Point ration was originally based on twice the ration for the regular force.

Mr. ANTHONY. It was figured that these young and growing boys needed this extra food?

Col. HANNAY. Yes, sir. So I think it can be assumed that that could be reduced to twice the value of the ration we are asking now. You see, it was based before on practically twice the ration that we were figuring on when we first made these estimates—54 cents—so I believe they would get the same food for 84 cents.

COST OF SUPPLIES TO OFFICERS AND ENLISTED MEN.

Mr. Sisson. May I ask a question about officers purchasing food from these various depots? At what price do they get their food? For instance, if an officer is stationed at Fort Sam Houston, or some other point, and chooses to purchase his own supplies, how do you arrange the cost of them to the officer? What is your system?

Col. HANNAY. I regret to say you have never given us a ration, Mr. Sisson.

Mr. Sisson. It has never been given to you, but you buy it.

Col. HANNAY. Yes; but entirely from our pay.

Mr. Sisson. That is what I am getting at, exactly. You have an account at one of the depots and pay for the supplies out of your salaries?

Col. HANNAY. Yes, sir.

Mr. Sisson. How is the price fixed to the officers?

Col. HANNAY. The sale price to the officers is the cost of the article as averaged during the last month or from the last invoice.

Mr. Sisson. Do you figure into that any overhead charge at all?

Col. HANNAY. We do not; no, sir.

Mr. Sisson. For instance, if beef is 15½ cents and he gets a steak, he gets the steak at 15½ cents?

Col. HANNAY. No, sir. They cut it, you know, and charge him according to the cut, so that the entire meat is paid for to the Government; there is no waste to the Government. In other words, he is not getting a choice cut at the price of the hock.

Mr. Sisson. That is an answer to my question.

Gen. ROGERS. That makes some of the cuts a good deal cheaper. The amount of money taken in by the quartermaster for a hind quarter of beef just covers the cost to the Government of that hind quarter of beef. Some of the cheaper cuts are sold to the messes, and they get the poorer cuts at a less rate than would be charged in case they took the whole hind quarter.

Mr. Sisson. Take the enlisted men who are subsisted at the expense of the Government; under that arrangement would they get the cheaper cuts?

Gen. ROGERS. They would get them at a cheaper rate; yes. I had an experience along this line when I was in Texas City with the Second Division. The pack trains had a very small mess, only 14 men, and sometimes there would be two pack trains that would club together and have a mess for the 28 men; they could not afford to buy fresh beef very often at the prices charged, but they were very glad to go to the sales commissary, where they had a butcher shop, especially after the hurricane, and they would buy the cheaper cuts with which they would make soup, stews, and things of that kind. That would help out their mess, and then they could use the money that would have been paid for beef at the regular prices and get other things.

Mr. ANTHONY. Why would they have to buy beef? Would it not be furnished to them in the ration?

Gen. ROGERS. Yes; but it would be charged up at so much on their ration.

Mr. ANTHONY. You mean, they were allowed so much per day per man to feed themselves?

Gen. ROGERS. Yes, sir; and if they drew beef at 12 or 13 cents a pound that would be charged against the total amount of the ration that was coming to them, and they could save money by going to the butcher shop and only paying 4 or 5 cents a pound.

Mr. ANTHONY. It has always been the practice to allow men under those circumstances to choose the food they wish to have in their messes?

Gen. ROGERS. With a certain limitation; yes.

Mr. ANTHONY. So that if they wanted to get certain kinds of food it was their privilege to do so?

Gen. ROGERS. It is up to them.

Mr. ANTHONY. So it is up to them whether——

Gen. ROGERS (interposing). Whether they take the whole ration in kind or a percentage that is allotted to them.

Mr. ANTHONY. Suppose you issued the whole ration in kind; would it include beef?

Gen. ROGERS. They had to take their rations in kind during the war.

Mr. ANTHONY. Are the cuts fairly distributed to the enlisted men or do they get all of one class of beef?

Gen. ROGERS. They fix the cut themselves when they get them in quantity; at one time they will get the hind quarter and at another time the fore quarter; they take turns.

Mr. ANTHONY. When that is sent to them, does it come out of the commissary?

Gen. ROGERS. Yes, sir; it comes out of the regular issues in that case.

Mr. ANTHONY. Is it all one cut?

Gen. ROGERS. It is a whole hind quarter of meat.

Mr. ANTHONY. Issued to the troop or company?

Gen. ROGERS. Yes, sir; and the organizations can cut it up.

Mr. ANTHONY. To suit themselves?

Gen. ROGERS. Yes, sir; and divide it among the messes.

Mr. ANTHONY. So they are not deprived of the best cuts?

Gen. ROGERS. No, sir; they are not deprived at all.

Mr. ANTHONY. Would it not be fair, following Mr. Sisson's suggestion, to provide for the overhead cost in the commissary price of food sold to those who have the privilege of purchasing commissary supplies, or, in other words, to add a certain amount for the overhead cost to the Government for handling this service?

Gen. ROGERS. That might be considered.

Mr. ANTHONY. For instance, when you run a store here in Washington of that sort, or a commissary, nothing is added to the cost of those commodities to cover that overhead?

Gen. ROGERS. No, sir; but we are careful to see that the officers or other people who are allowed to buy goods at the commissaries purchase them f. o. b. at the locality of the store. In other words, whatever is purchased in the store in Washington is purchased for that store f. o. b. Washington, so that there is no charge for freight. Of course, there is a certain amount of overhead.

Mr. Sisson. And that overhead, of course, is considerable in the course of a year. It amounts to quite a good deal in lump sum, but if every man paid just a small increase where he is permitted to purchase under the law, or where he is given that privilege of getting it at cost, it would not amount to much in the case of each individual. I think that there has been, perhaps, some abuse of that privilege where they have not been charged with the overhead cost. Of course, they pay less in purchasing these supplies from the Government than they would have to pay if they were stationed where they could not avail themselves of these Government storehouses.

Gen. ROGERS. It helps them out a good deal, and especially in a city like Washington. The average officer in Washington could not live on his pay otherwise.

Mr. Sisson. I am not endeavoring to prevent their purchasing, but I feel that they ought to pay a little more than they now pay, because the overhead ought to be cared for to a certain extent. I would not want to charge them with the entire overhead, because that would be manifestly wrong and unfair. If they purchased one-tenth of their supplies from the commissary in Washington—and that would not be a fair illustration, because the officers stationed here would purchase more than they would at a post elsewhere, but I am simply trying to illustrate it.

As I say, if those officers were charged a little profit over and above the actual cost to take care of the actual overhead, they would still have a vast advantage over the officers who did not happen to be situated where they could avail themselves of that privilege.

SUPPLIES FOR GENERAL PRISONERS.

Mr. ANTHONY. Referring to the item for supplies for general prisoners, prisoners are subsisted in the same way as enlisted men of the Army, are they not?

Col. HANNAY. Yes, sir; they are paid the same allowance.

Mr. ANTHONY. At most of the institutions where you have prisoners confined, they have farms and other means to augment their supplies of subsistence. Are those additional items of food and supplies charged to the ration?

Col. HANNAY. No, sir. Alcatraz and Fort Leavenworth are the two large disciplinary barracks, and, of course, there is nothing of the kind at Alcatraz, because that is nothing but a rock.

Mr. ANTHONY. I had in mind those places where you are operating farms and where large amounts of food supplies are produced. The expense of producing those items of food supplies comes out of this appropriation, does it not?

Col. HANNAY. No, sir. Any seeds purchased would be procured by the organization benefiting by the farm activity.

Mr. ANTHONY. I mean these disciplinary organizations, or prisoners, for whom the estimate is made.

Col. HANNAY. In some cases they do, of course, produce food products for the posts or for other organizations, or they did formerly.

Mr. ANTHONY. I am referring to the disciplinary barracks and to prisoners at other places, where they do produce large quantities of food supplies. Are those supplies poured right in to augment the regular ration that is issued for the maintenance of the institution?

Col. HANNAY. They would be; but I would like to get a statement covering that from The Adjutant General's Office, which has charge of prisoners, because I do not know to what extent that is carried out. I believe most of the prisoners are working at other things.

Mr. ANTHONY. Do you know what becomes of the money received from the sale of such products?

Col. HANNAY. No, sir.

Mr. ANTHONY. That would not be handled through your department?

Col. HANNAY. No, sir.

Mr. ANTHONY. I wish you would get us some information on that and send it to the committee.

Col. HANNAY. I will do so.

RATIONS FOR WEST POINT CADETS.

(See p. 520.)

Mr. SLEMP. Is the ration one meal or three meals?

Col. HANNAY. Three meals.

Mr. SLEMP. So that a West Point cadet is really boarded at a cost of \$30.24 per month?

Col. HANNAY. Yes, sir; or \$1.08 per day.

Mr. SLEMP. And the cost for a soldier is \$15.12 per month?

Col. HANNAY. It would be 42 cents per day under this estimate.

Mr. SLEMP. The proposition next year is to board West Point cadets at \$24 per month and the soldiers at \$12.24 per month?

Col. HANNAY. Yes, sir.

FOOD CHESTS.

Mr. ANTHONY. Have you included an item for food chests?

Col. HANNAY. No, sir; not for food chests, but some supplies for food chests are estimated by the Surgeon General to carry on the maintenance of those food chests which amount to \$1,324. That is for supplies carried in the food chests. There is nothing for food chests this year.

Mr. ANTHONY. You have constructed all the food chests you need?

Col. HANNAY. Yes, sir.

SUPPLIES FOR FLYING CADETS.

Mr. ANTHONY. Are you carrying an item for supplies for flying cadets this year?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. For how many?

Col. HANNAY. One thousand two hundred and fifty.

Mr. ANTHONY. What are you asking for that purpose?

Col. HANNAY. For flying cadets, \$456,250.

Mr. ANTHONY. What have you expended for that purpose during the present fiscal year, or what will you expend for that purpose?

Col. HANNAY. This was worked out upon the basis of our expenditures for the present fiscal year, and they amount to the same thing—that is, for 1,250 flying cadets, 365 days, at \$1 per day.

Mr. ANTHONY. Their subsistence is the regular ration?

Col. HANNAY. No, sir; it is \$1 per day.

SUBSISTENCE FOR MASTERS OF TRANSPORTS.

Mr. ANTHONY. How much are you asking for under the head of subsistence of masters of transports?

Col. HANNAY. We are asking for \$8,085. That is for 17 masters, 365 days, at \$1.25 per day.

Mr. ANTHONY. Is that an extra amount for the masters of transports?

Col. HANNAY. It is not extra, but it is the ration allowance.

Mr. ANTHONY. I suppose the crew of the transports is subsisted at the expense of the Government.

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Why is the master of the transport allowed a separate ration?

Col. HANNAY. He lives in the saloon mess with the officers. The officers traveling on the ship have to pay that price, and if you were to travel on a transport that would be the price charged to you.

Mr. ANTHONY. He is not a commissioned officer?

Col. HANNAY. No, sir; but he has to pay the saloon price.

Mr. ANTHONY. He is entitled to that in addition to his salary?

Col. HANNAY. Yes, sir.

Mr. Sisson. Was not that formerly \$1, instead of \$1.25?

Col. HANNAY. It used to be \$1, but it has been increased to \$1.25 for several years.

Mr. ANTHONY. That is the price charged for subsistence on transports to passengers who are not members of the military service, is it not?

Col. HANNAY. \$1.75 has been the charge, but we will reduce it to \$1.25.

Mr. Sisson. Do you not think that \$1 in the next fiscal year will be equal to \$1.25 in this fiscal year for this purpose?

Col. HANNAY. It is \$1.75.

Mr. Sisson. I am speaking of the officers who get this subsistence for \$1.25, or the masters. As I understand it, they are paying \$1.25 in this fiscal year, and you are estimating \$1.25 for the next fiscal year. Now, do you not think that \$1 will be ample for this purpose for the next fiscal year because of the marked falling off in price of food?

Col. HANNAY. It is doubtful if they will be able to reduce it for this coming year from \$1.25 to \$1.

Mr. Sisson. I am speaking of the officers or masters. I am not interested in the others.

Gen. ROGERS. You are referring to the masters?

Mr. Sisson. Yes.

Col. HANNAY. The average cost has been \$1.75, and if we give him but \$1.25 and the ration costs more, then, of course, he has to pay more for the ration that he is allowed. It is doubtful whether we will be able to reduce it. We do not believe that we will be able to reduce it to \$1 right away.

Mr. Sisson. I think that in the course of six months conditions in the industrial world outside of Washington and outside of those who are receiving fixed salaries which can not be changed in a year, will so shape themselves as to very materially reduce the cost of food supplies. I agree with Mr. Wood, the chairman of the subcommittee on the legislative, executive, and judicial appropriation bill, that there will be no complaint about the high cost of living within the next year, or after the 1st of July, because there is such a radical reduction in prices taking place. If they are not reduced the people will not be able to pay them. That is a small matter in this particular item, but if it runs all through this appropriation bill, it may amount to a considerable sum.

SUBSISTENCE FOR OFFICERS OF TRANSPORTS.

Mr. ANTHONY. The next item is for subsistence for officers of transports. Is this for the subsistence of civilians who are transport officers?

Col. HANNAY. It is for civilian officers and all types of officers except masters.

Mr. ANTHONY. Is that at the same rate?

Col. HANNAY. No, sir. Eighty-eight of them get \$1.25. Those are the ranking officers; and 444 officers get \$1 per day.

Mr. ANTHONY. How much are you asking for that purpose for next year?

Col. HANNAY. We are asking \$202,938. This is another item in which there is a deficit.

Mr. ANTHONY. How much was used or allotted for that purpose this year?

Col. HANNAY. We were apportioned \$152,457.

SUBSISTENCE OF CREWS OF TRANSPORTS.

Mr. ANTHONY. The next item is for subsistence of crews of transports. How much do you ask for this item?

Col. HANNAY. \$902,799.

Mr. ANTHONY. How much have you used for that purpose during the present year?

Col. HANNAY. We were apportioned \$728,206, but that amount will not carry us through the year. We asked \$1,111,000, but our present estimate is less than that because of the difference in the cost of food.

Mr. ANTHONY. Will you operate fewer transports in the next fiscal year than are now in operation?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Where will your reduction in transport service come in?

Col. HANNAY. It is estimated that we will reduce it to 17 transports.

Mr. ANTHONY. In the transatlantic service?

Col. HANNAY. That will be the entire service.

Mr. Sisson. Does that include the service to the Philippine Islands?

Col. HANNAY. Yes, sir; the Philippine Islands, Panama, the transatlantic service, and all of it.

Mr. Sisson. Are these transports being operated by the Navy?

Col. HANNAY. No, sir; by the Quartermaster Corps.

RATIONS TO WEST POINT CADETS.

(See p. 517.)

Gen. ROGERS. Going back to the West Point rations, I have investigated that matter a little, and there is included in that ration, or in the \$1.08, the pay of the employees of the cadet mess. That is an item that I think ought to be considered. Last year when the amount for the ration was raised, it was brought out before the committee that the cadets had a certain amount charged against their pay each month on account of the ration. Therefore, if you make a material reduction in that amount it will impose a hardship upon the Corps of Cadets.

Mr. ANTHONY. In other words, they would have to pay a little sum in addition to the actual cost of the ration on account of the compensation of these employees?

Gen. ROGERS. Yes, sir; there are 90 employees paid for out of that mess fund. It would be quite a hardship on the cadets to charge that amount against their pay.

Mr. ANTHONY. Heretofore they have made up the money themselves out of their pay?

Gen. ROGERS. Yes, sir. I think if any reduction is made at all it should not go below \$1. It might be possible to reduce it to \$1.

Mr. SLEMP. You add 16 cents per day?

Gen. ROGERS. To cover the extra cost, or to pay for the employees.

Mr. SLEMP. What does that amount to?

Gen. ROGERS. I can not tell without investigating it. That is in a separate appropriation for the Military Academy.

MEALS FOR RECRUITING PARTIES.

Mr. ANTHONY. How much are you asking for the item of meals for recruiting parties?

Col. HANNAY. We are asking for \$887,650, based upon a strength of 175,000 men, or \$1,643,798, with a strength of 280,000 men.

Mr. ANTHONY. As against an expenditure of how much in the current fiscal year?

Col. HANNAY. We were apportioned \$605,523, but this is another item in which there will be a deficiency.

Mr. ANTHONY. Of how much?

Col. HANNAY. I can not give you that in detail at present.

Mr. ANTHONY. It will probably be much easier to secure enlisted men this year, or in the next fiscal year, than it has been.

Col. HANNAY. Of course, that depends upon the size of the Army as fixed by Congress. There has been a tremendous increase in applications, and it is more than probable that that will grow next year.

Mr. Sisson. I agree with the chairman. Of course, it is purely a matter of opinion, but I think that the general conditions throughout the country will make service in the Army rather more attractive in the next fiscal year than it has been for some time in the past.

MEALS FOR APPLICANTS FOR ENLISTMENT.

Mr. ANTHONY. How much are you asking under the item of "Meals for applicants for enlistment"?

Col. HANNAY. \$591,766, based upon a strength of 175,000 men.

Mr. ANTHONY. How much was expended for that purpose this year?

Col. HANNAY. We were apportioned \$442,260, and we have over-expended that. We have spent more than that.

Mr. ANTHONY. Does that mean that when a man presents himself for enlistment he is actually subsisted up to the time he goes into the military service? You feed him out of this item until he goes into the service, do you not?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. How do you feed him; do you pay him a regular amount?

Col. HANNAY. That is done by a contract with small eating houses in the vicinity.

STORES FOR SALE TO OFFICERS AND TROOPS.

Mr. ANTHONY. You are asking how much under the head of "Stores for sale to officers"?

Col. HANNAY. We have eliminated the item of "Stores for sale to officers."

Mr. ANTHONY. How about the item of "Stores for sale to troops"?

Col. HANNAY. We have eliminated that, also.

Mr. ANTHONY. Why have you eliminated those items?

Col. HANNAY. That is a revolving fund.

Mr. ANTHONY. Are these stores kept at the commissaries?

Col. HANNAY. Yes, sir. We use this fund in total for the procuring of those supplies, and the same money is made available again.

Mr. ANTHONY. So you have a revolving fund?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Is it a large fund?

Col. HANNAY. It is quite large.

Mr. ANTHONY. Can you tell us how much it amounts to?

Col. HANNAY. It amounted to approximately \$34,000,000 during the past fiscal year.

Mr. ANTHONY. That represents the total transactions?

Col. HANNAY. The total sales.

Mr. Sisson. What is the amount that you may turn over? It is not \$34,000,000, is it? As I understand it, that refers to the total sales, and I want to know how many times you turn that fund over. In other words, I want to know the amount of capital you have invested.

Col. HANNAY. I do not quite understand that.

Mr. ANTHONY. There have been amounts appropriated from year to year, or allotted from year to year, for this purpose, or for the purchase of these goods, which you have subsequently resold.

Col. HANNAY. The amount appropriated was not sufficient to handle the dead stock, as a matter of fact.

Mr. ANTHONY. This is all in addition to the stock purchased under other items in the appropriation?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. What is the value of the stores you now have on hand, or what is the value of the stores you have on hand and the cash you have on hand from sales made?

Col. HANNAY. We have no cash on hand.

Mr. ANTHONY. Does the money derived from these sales go into the Treasury?

Col. HANNAY. It is transferred through the Treasury to the credit of the appropriation. For instance, while we are asking for nothing here, we will use the general appropriation, or the subappropriation, of "Subsistence of the Army" to procure sales articles. Then, when the money is transferred by the Treasury we reimburse the appropriation with the money used. Of course, it comes from all the items.

Mr. Sisson. You have cash on hand, in the cash drawer, and cash in the Treasury?

Col. HANNAY. There is none in the cash drawer when it is deposited in the Treasury. It is deposited in the Treasury and afterwards it is transferred back to the appropriation.

Mr. Sisson. Suppose at the end of a day's sales, or at the end of a week, you make a certain deposit in the Treasury. You then ought to have cash in the Treasury or goods on your shelves that would represent the capital that is invested.

Gen. ROGERS. I think possibly that you do not understand the system of those sales. In those sales stores they may sell a ration article, or they may sell some special sales article, and they are all kept together. For instance, an officer may want to buy a side of bacon, or he may want to buy some flour ordered for soldiers, and he will pay for that flour. Now, that money goes into the general subsistence fund, and it is not kept separate at all. If the officer buys some ration article, that money goes right into the funds, and we buy a similar amount of such ration articles with that money.

Mr. Sisson. That is, you reimburse the ration funds?

Gen. ROGERS. Yes, sir; we do not keep the items separate at all. An officer may buy a ration article or he may buy a sale article.

Mr. Sisson. How much of this money has been paid by the soldiers for ration articles?

Gen. ROGERS. I do not quite get that.

Mr. Sisson. For instance, if I am a soldier and buy a ration article, that money does not go into the Treasury.

Gen. ROGERS. He would not buy his ration, but that would be issued to him.

Mr. Sisson. But it would deplete the stock by that much?

Gen. ROGERS. You do not get money for the soldiers' ration, but that is issued to him.

Mr. Sisson. Now, suppose an officer buys an article and pays for it with his own money, does that money go into the Treasury?

Gen. ROGERS. It is used to reimburse the amount of the stock that is purchased. In other words, if an officer buys one ration, he pays for that ration, and that takes a ration away from some soldier, but when the officer pays for it we buy another ration, and we are ready to issue that ration to a soldier.

Mr. ANTHONY. How about the sales items that you speak of that are not included in the ration?

Gen. ROGERS. In what way?

Mr. ANTHONY. How is the transaction handled as to those items in connection with the revolving fund?

Gen. ROGERS. For instance, if there were some item like tobacco, or if an officer bought a box of cigars, he would pay for the cigars, and the money that we received from him for the cigars would go into the subsistence fund and would go to the Treasury. Then it would come back and be placed to our credit again, and we could buy another box of cigars for another officer.

Mr. ANTHONY. Then, you have for the financing of these stores your current subsistence appropriations?

Gen. ROGERS. And in addition the original appropriation made for that store.

Mr. ANTHONY. How much does that revolving fund amount to?

Gen. ROGERS. I can not tell you without looking it up.

Mr. Sisson. This is something that Congress is apparently losing sight of entirely. We lose sight of the real amount of money involved in these transactions. It appears that there is a business going on through the Treasury Department and that Congress has lost sight of it entirely. It is something like a fixed appropriation, except as in the case of one fixed appropriation, the law definitely fixes a charge against the Treasury to pay interest upon bonds, etc. That is a matter that we can keep up with in a way, but here is an amount of money on which we have no check.

Gen. LORD. The Quartermaster General in this estimate is not asking for any additional appropriation.

Mr. Sisson. But there was a fund that was appropriated, the amount of which we are not now able to ascertain. They are not asking for any additional money for that fund, which is a revolving fund, and, as I understand it, they think that it has revolved sufficiently to keep going.

Gen. LORD. My recollection is that the amount estimated last year was comparatively small.

Col. HANNAY. \$180,000 was appropriated last year.

Mr. Sisson. How much was appropriated prior to that?

Col. HANNAY. We had on hand not in excess of \$200,000.

Mr. Sisson. You had some money appropriated prior to that, did you not, or how long has this been going on?

Col. HANNAY. As long as I can remember.

Mr. Sisson. I thought your appropriation was \$34,000,000.

Col. HANNAY. The sales amounted to \$34,000,000.

Mr. Sisson. Out of that fund?

Col. HANNAY. Out of the subsistence fund. We have not created a fund that makes available to us any money in excess of the amount of the appropriation.

Mr. Sisson. Suppose Congress asked that that fund be transferred to the Treasury as miscellaneous receipts, how much money could we have so transferred?

Col. HANNAY. If they took \$34,000,000, we would have to come back for a deficiency of \$34,000,000.

Mr. Sisson. Not so far as the revolving fund is concerned, because, as I understand it, you would have to replace your articles taken away from the soldiers, or replace the articles that have been purchased by the officers.

Gen. ROGERS. The original necessity for this fund was this: Originally, we were only allowed the general subsistence appropriation, and out of that we had to finance these extra articles. For instance, an officer wanted to buy cigars or things that were not ration articles, and we had to take this ordinary appropriation and purchase them. Of course, that depleted our regular appropriation, but when you gave us a certain amount of money to buy these sales articles, as distinguished from ration articles, we were allowed to accumulate a certain stock of those things. That money is turned over and over. Those sales articles are distinguished from the ration articles that we sell to them. We sell ration articles to the officers and also sales articles.

Mr. Sisson. Gen. Lord, you generally carry all these things in your mind, and I wish you would explain to me what that fund is.

Mr. ANTHONY. What happened to the \$180,000?

Gen. LORD. If \$180,000 was appropriated last year, it was used for the purchase of \$180,000 worth of supplies for sale to officers under the act of July 28, 1866, which provides for such sales. If that were done, there would be a financial operation involved which would, if limited to that immediate transaction, provide for the purchase of \$180,000 worth of supplies for sale to officers. Now, when that \$180,000 was paid back to "Subsistence of the Army," to obviate its becoming a constant revolving fund, the \$180,000 would be returned to the Treasury as "Miscellaneous receipts." During the war, the amount in the fund has been practically negligible, because there were thousands of officers stationed at places where they were not able to buy the things that they needed for themselves and their families. This privilege has very properly been extended, and the amount appropriated last year, which I do not recall, was really negligible, because during the demobilization period there must have been sold, as has been stated, something like \$34,000,000 worth of supplies.

Mr. Sisson. Now, you are getting the two funds confused again in my mind. I can understand clearly the procedure for purchasing articles that were paid for out of the soldiers' ration money. That has been explained, but I get confused the moment you begin to mix that part of it with the \$180,000 fund.

Gen. LORD. The difference between the \$180,000 and the \$34,000,000, which was taken from regular subsistence——

Mr. Sisson (interposing). When you drop that item out of this appropriation bill this year does that \$180,000 go into the Treasury to the credit of miscellaneous receipts?

Mr. ANTHONY. Right there, has that money gone back to the credit of subsistence and been used for the purpose of purchasing supplies for the subsistence of the Army?

Gen. LORD. It has, but it is not enough, because they have a shortage under subsistence; they have expended that and obligated more.

Mr. Sisson. Then you got \$180,000 more for general subsistence than was actually appropriated as such?

Gen. LORD. The reason it has been omitted, as I understand, is because it is understood that Congress, very properly, is opposed to the continuance of revolving funds, so that in the estimate for 1922 the Quartermaster General is asking for no appropriation for this purpose.

Mr. Sisson. I have always been opposed to revolving funds because of the difficulty we have in understanding each other when the time comes.

Mr. SLEMP. Suppose an Army officer purchased some goods that he can not sell and those goods are on the shelf, those goods having been purchased in good faith with money borrowed from the subsistence funds of the Army—whose loss is that?

Col. HANNAY. The procedure that governs is that in purchasing sales articles exclusively for officers they supply the officer with the special things desired and approved by the Inspector General of the Army.

Mr. SLEMP. What about the articles not so purchased?

Col. HANNAY. They are articles for general issue.

Mr. SLEMP. But suppose you buy shoes or buy something else, whatever it is, toilet articles or anything else, for which you do not have a sale, as is the case with merchants every day.

Col. HANNAY. The loss would be sustained by the Government. The procedure is followed of having articles in stock that are required for general use.

Mr. SLEMP. But suppose they make a slip and find a lot of goods on the shelf that they can not dispose of.

Col. HANNAY. That is a loss.

Mr. SLEMP. Who loses—the Government or the officer?

Col. HANNAY. The Government loses.

Mr. SLEMP. Then this sales purchaser is not an agent of the men or of the officers whose money he is using, but an agent of the Government?

Col. HANNAY. They are purchased under a provision of law that provides for this procedure, and it is like anything else, if a purchasing officer procures articles unsuited for the service the Government stands the loss:

Mr. SLEMP. Suppose you had an inventory made of all the goods on the shelves of the various sales stores and found a lot of those obsolete and useless and could not be sold, then that would represent a loss to the Government?

Col. HANNAY. You are referring to what class of articles?

Mr. SLEMP. Subsistence articles.

Gen. ROGERS. May I answer that question? There was a special law passed that directed the Quartermaster Corps to carry in stock all articles of equipment and necessary supplies for officers; so we are required to carry these articles in stock and in case the regulations should change, for instance, using boots as an illustration—in case the Secretary of War should direct that the style of officers' boots should change and we had a stock on hand, of course, we would have to sell the old boot as best we could and get the new kind.

Mr. SLEMP. Out of what fund would the loss come?

Gen. ROGERS. It would depend on what it was; it would come out of clothing and equipage on the boot question. Does that answer your question?

Mr. SLEMP. In other words, the officer buying a new pair of boots would also be paying for the loss on the other boots that had been ordered for him?

Gen. ROGERS. No, sir. We are directed by Congress to carry in stock all equipment for an officer, and if the equipment changes the Government loses on account of the change.

Mr. SLEMP. But my question is this: Would you add the loss to the price of the new boot?

Gen. ROGERS. No, sir. Under another law we are required to sell the boot to the officer at cost price.

Gen. LORD. Under the original law which I quoted—the act of July 28, 1866—the Inspector General was to determine what articles should be kept for sale to officers.

Mr. Sisson. Whose business is it to check up this whole matter of losses which may occur in the operation of these various stores?

Gen. LORD. It is the Inspector General's duty to inspect the operations of Army sales stores, and operations of that description.

Mr. Sisson. It might be interesting to ascertain how, during the last few years, these stores have been run and find out how much money has actually been lost by virtue of the occurrences about which the general speaks.

Gen. ROGERS. We have only been allowed to keep these supplies during the war; you enacted a law which authorized us to keep these supplies for officers.

Mr. Sisson. I recollect very well when we did it. You have mentioned boots, and I remember that the boots were being sold at such enormous prices that they startled me, and that action was taken by Congress in order to protect the officers against such extortionate prices. However, I presume that this having been dropped out, it means that that side of the business is going to cease.

Gen. ROGERS. I do not think there will be much loss. You see, we do not carry a stock of supplies in the same way that a merchant does; we do not cater to a particular trade at all, but simply carry in stock the essentials.

Mr. Sisson. That may be true, but even with the very best business judgment there is going to be quite a considerable loss owing to the amount of stock you have, and that is unavoidable.

Gen. ROGERS. I do not think there is very much loss.

Mr. ANTHONY. These store operations have no relation to the operation of the post exchanges, have they?

Gen. ROGERS. No, sir.

Col. HANNAY. The same extortion, I think, exists at all times in regard to uniform articles that existed during the war. An officer always has to pay a tremendously higher percentage for his uniform and uniform articles than a civilian does for his clothing.

Gen. ROGERS. You see, we are manufacturing uniforms in quite a number of our establishments all over the world, and it is a saving, especially to these new officers who are just getting into the service; it helps them out a great deal in buying their uniforms at reduced prices.

Mr. Sisson. If we were sure that the Government was running all of the institutions so that it could be absolutely repaid it would be a perfectly proper business.

Gen. ROGERS. I would like to have the committee investigate the running of these establishments.

Mr. Sisson. This is one line of business that is not checked up properly. We have arranged matters, since we have had Gen. Lord, so that we can check up a great many things, but this has no check at all, and we sit here helpless.

Col. HANNAY. The Inspector General's Department constantly checks up this business.

Mr. Sisson. He makes no report, however, to Congress as to its condition. It is the same thing, Gen. Lord, that Mr. Sherley was always complaining about, that never occurs under the English system, because they not only appropriate money and have regulations to prevent embezzlements, but they also have a system whereby they follow up those things, a system of accounting.

Mr. CRAMTON. The other day I noticed some complaint in the London Times in regard to a large number of sums that had disappeared and which they were trying to find. Those funds had gotten away even under their system.

Mr. Sisson. Yes; even under their system they can not get it straight, and in the case you speak about there perhaps has been some embezzlement.

Mr. CRAMTON. It was a case of the misuse of funds in the Mesopotamia campaign.

Mr. ANTHONY. Do you not have a check upon all of the operations of your department?

Gen. ROGERS. An absolute check; yes, sir.

Mr. ANTHONY. So if you buy a certain number of pairs of boots that go into stores located at certain places for sale to officers you know how many sales have been made, how much stock is on hand, and how much money comes back?

Gen. ROGERS. There has to be an absolute accounting as far as that goes. The question that Mr. Sisson has raised would require considerable bookkeeping in order to separate the sales articles from the

ration articles, and it is a question in my mind whether it would pay the Government to furnish the employees to do that. You take these large firms in commercial life; they figure on whether it would not pay to stand a small loss on certain things than to spend too much on accounting.

Mr. Sisson. And, of course, you must increase your profit in private business to cover your losses, but we are not doing that here.

Gen. ROGERS. A certain amount of it, yes; but take the question of these sales articles; you see, we put them on the shelves alongside of the ration articles, and to try to run an establishment of this kind—

Mr. Sisson (interposing). That is not what I am complaining about.

Gen. ROGERS (continuing). And keep the ration articles separate from the sales articles would be an endless job.

Mr. Sisson. I have no doubt you have a complete system of checking in your department, but the thought I have in mind is that the appropriating end of it, the appropriating body of men that takes the money out of the Treasury, to wit, the Congress, has no way of determining how that money has been expended, because the Treasury Department makes no report to us of these expenditures. It is just a question as to whether or not there has been a deficit which would amount to an absolute embezzlement, which would bring it to our attention, after investigation by the legal branch of the Government. Prosecutions would actually be instituted before the attention of Congress would be called to it, and that would appear in the newspapers and not appear through any report to us.

Gen. Lord, if you can I wish you would make a statement to me privately, so that I can get straight in my mind what becomes of the \$180,000. If you can make such a statement I will be very glad to have it.

Gen. LORD. I think the \$180,000 has been expended for rations for troops long before this, and many times over.

Mr. ANTHONY. And you are asking for a deficiency on top of that?

Col. HANNAY. Yes; it has been expended for rations for troops, so that it has not been expended for sales articles.

MEALS TO COMPETITORS AT NATIONAL RIFLE MATCHES.

Mr. ANTHONY. Have you an item in this year's estimates for meals for competitors at national rifle matches?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. How much are you asking?

Col. HANNAY. We are asking \$12,000 for 400 men for 70 days.

Mr. ANTHONY. What was expended this past year?

Col. HANNAY. I can not give you that in detail, because that is estimated in the Adjutant General's Office.

Mr. ANTHONY. This has nothing to do with the civilian rifle practice?

Col. HANNAY. No, sir; that is a separate item.

Mr. ANTHONY. It is for the subsistence of Army teams?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Do you intend to have these matches this year?

Col. HANNAY. We are informed by The Adjutant General that we will have them; yes.

Mr. CRAMTON. Are they on the same basis as other meals?

Col. HANNAY. No; they are \$1.68.

Mr. CRAMTON. Per day?

Col. HANNAY. Yes.

Mr. CRAMTON. But the bill carries a limitation of \$1.50.

Mr. ANTHONY. That is where they are commuted.

Col. HANNAY. Yes.

COMMUTATIONS OF RATIONS FOR UNITED STATES MILITARY ACADEMY
CADETS.

Mr. ANTHONY. For commutation of rations for cadets at the United States Military Academy how much are you asking in this bill?

Col. HANNAY. We are asking \$512,460 for 1,300 cadets.

Mr. ANTHONY. That is the number they now have at the academy?

Col. HANNAY. It is the number they will have next year.

Mr. ANTHONY. How many have they now?

Col. HANNAY. One thousand and six.

Mr. CRAMTON. I would like to have my mind made clear in regard to the item of meals for competitors at national rifle match. I understood that the estimate is based on a figure of \$1.68 per day.

Col. HANNAY. Yes, sir.

Mr. CRAMTON. The proviso which disturbs me is:

That no competitor shall be entitled to commutation of rations in excess of \$1.50 per day, and when meals are furnished no greater expense than that sum per man per day for the period the contest is in progress shall be incurred.

What does the \$1.68 per day refer to and does this proviso interfere with it?

Col. HANNAY. We would be limited by the proviso.

Mr. ANTHONY. Was this proviso carried last year?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Your estimate, then, is for more than the proviso?

Col. HANNAY. Yes, sir. This is figured on the basis of four rations.

Mr. CRAMTON. And does not take the proviso into consideration?

Col. HANNAY. No, sir.

Mr. CRAMTON. What effect would the proviso have on your estimate?

Col. HANNAY. We are limited to the proviso, of course.

Mr. Sisson. You could not spend the money, then?

Col. HANNAY. No, sir.

Mr. ANTHONY. You could not spend over \$1.50?

Col. HANNAY. No, sir.

Mr. ANTHONY. In view of the reduction in the price of things, could not the proviso stand the same as it is in the bill?

Col. HANNAY. I believe it could.

Gen. ROGERS. I think it would simplify the thing if you would cut off the 18 cents.

Col. HANNAY. It was on the basis of the Army regulations as to what is prescribed.

Mr. ANTHONY. You say that for the commutation of rations for cadets at the United States Military Academy you have figured on 1,300 cadets and \$1.08 per day per man.

Col. HANNAY. Yes, sir.

Mr. ANTHONY. So that is an arbitrary figure?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. If we reduced that to \$1 the amount could be proportionately reduced?

Col. HANNAY. Yes, sir.

Mr. CRAMTON. I thought your suggestion was 84 cents.

Col. HANNAY. That was before the Quartermaster General read into the record the statement of cost that is entailed on the cadets for personnel, approximately 90 employees that these cadets have to pay, so it would appear it would be somewhat of a hardship on them to do that.

Mr. CRAMTON. But they have always had to do that.

Mr. ANTHONY. That was considered a year or two ago and I think that the members of the Military Committee felt that the cadets ought not to pay that—is not that correct?

Col. HANNAY. I do not know.

Gen. ROGERS. The last time I was at West Point, a couple of years ago, there was considerable complaint on account of the mess, and that they did not have money enough to run it on account of this increased cost. So I think the least that the amount could be cut down would be from \$1.08 to \$1, in view of the fact that they have to pay these employees.

COMMUTATION IN LIEU OF RATIONS TO ENLISTED MEN ON FURLOUGH.

Mr. ANTHONY. Do you subsist men on furlough?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. For the full period of the furlough?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. How much are you estimating that will cost you?

Col. HANNAY. They get the value of one ration and we are estimating that it will cost, with an Army at the strength of 175,000 men, \$530,222.

Mr. ANTHONY. That is all commuted to them, is it?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. You will revise that item when you make your additional estimate for 150,000 men?

Col. HANNAY. Yes, sir.

COMMUTATION OF RATIONS FOR MEN TRAVELING.

Mr. ANTHONY. Commutation of rations for men traveling. How much are you asking for that?

Col. HANNAY. We are asking for \$3,580,559.

Mr. ANTHONY. On an army of what size?

Col. HANNAY. That is on an army of 175,000.

Mr. ANTHONY. They are men who are traveling under order. I suppose?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Do you commute that to a money basis and permit organizations to subsist themselves, or do they draw the rations kind?

Col. HANNAY. Probably I can better explain that by reading this:

It is estimated that there will be one-half of 1 per cent of the Army stationed at places where rations can not be economically issued, but will draw commutation of rations at the rate of \$1.26 per man. Based on previous experience, it is estimated that the number of enlisted men and sick and insane traveling under orders will be 3,382 men; of this number 1,382 men will require commutation at the rate of \$1.68 per day and 2,000 men at the rate of \$3.18 per day.

Mr. ANTHONY. Those rates are for sick and insane men?

Col. HANNAY. Yes.

Mr. ANTHONY. Of course, it requires a greater amount to take care of them?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. How much do you allow an enlisted man traveling under orders?

Col. HANNAY. For 72 hours or less—when drawing neither quarters nor subsistence—he draws four rations plus \$1.50; for more than 72 hours, but less than 30 days, four rations plus 50 cents; 36 days or more, three rations plus 50 cents.

Mr. ANTHONY. What is your method when you are moving troops in numbers, say a regimental organization, from one post to another? Do you commute to them or do you actually subsist them en route?

Col. HANNAY. They used to be issued what is called a travel ration.

Mr. ANTHONY. Is that more than a ration on station?

Col. HANNAY. They get a garrison ration now with the kitchen cars.

Mr. ANTHONY. Years ago, in the days of the old Army, when numbers were moved from place to place, they would invariably be subsisted within their own organization; they would have their kitchen car or make coffee in a baggage car, as I have often seen done, but in recent years you do not see much of that. Is it a fact that now you are going to greater expense in subsisting men on travel than formerly?

Gen. ROGERS. They do that on moving large bodies of troops now the same as they did before.

Mr. ANTHONY. So you can subsist them when traveling in large bodies at practically the same cost as when on post?

Col. HANNAY. Just the same.

Mr. ANTHONY. And it is for small bodies where you give a cash allowance?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Do you find that cheaper than having them carry their rations?

Col. HANNAY. There are no facilities for them; when a man has to travel for several days on a train you can not expect him to eat cold food and have no coffee.

Mr. ANTHONY. So that these figures are worked out on the basis of past experience?

Col. HANNAY. Yes, sir; and the allowance is governed by regulations.

SUBSISTENCE TO FEMALE NURSES DETACHED.

Mr. ANTHONY. Have you an item for the subsistence of female nurses detached?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. What are you asking for that?

Col. HANNAY. \$42,540; 46 nurses for 365 days.

Mr. ANTHONY. What is a detached nurse?

Col. HANNAY. Detached from her proper station.

Mr. ANTHONY. Does that mean while she is traveling or is she on duty at some place?

Col. HANNAY. The Surgeon General's office estimates 46 female nurses on detached duty, and entitled to commutation; those who are away from their proper station, not necessarily traveling, but at a station where they can not draw rations, are given this allowance.

SUBSISTENCE TO MEN SICK IN HOSPITALS.

Mr. ANTHONY. How much does your item for men sick in hospitals amount to?

Col. HANNAY. \$1,761,097.

Mr. ANTHONY. That is based on an Army of what size?

Col. HANNAY. That is on an Army of 175,000.

Mr. ANTHONY. How much was used for that purpose during the present year?

Col. HANNAY. There was apportioned \$1,777,115.

Mr. ANTHONY. You are asking for practically the same amount?

Col. HANNAY. Yes.

NUMBER OF MEN IN HOSPITALS.

Mr. SLEMP. As a matter of fact, the number of men in hospitals is very much reduced.

Col. HANNAY. That estimate of the number of patients was made by the Surgeon General and we have taken his figures.

Mr. SLEMP. He made that estimate in October, did he not?

Col. HANNAY. The latter part of September.

Mr. SLEMP. As I understand it, he stated the other day that there were 3,200 men. Did he mean officers and men all together?

Gen. LORD. He said patients.

Mr. SLEMP. Patients in the hospitals.

Col. HANNAY. But they were patients in the general hospitals.

Mr. SLEMP. While these are the post hospitals?

Col. HANNAY. Everything; yes, sir; all the post hospitals.

Mr. ANTHONY. They get an increased allowance in the hospitals, do they not?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. What is the allowance for subsistence in the hospitals?

Col. HANNAY. Twice the amount, and an additional amount for tuberculosis patients.

Mr. SLEMP. Does this have to do with the War Risk and Public Health hospitals?

Col. HANNAY. No.

Mr. SLEMP. How many men did you have in the hospitals as of the 1st of January, 1921?

Col. HANNAY. I will have that put in the record. Number of men in hospitals December 24, 1920, was 7,632. We make our estimate on

the number the Surgeon General estimates will be in the hospitals. He estimates that there will be 1,423 men for 365 days at \$0.84 and that there will be 9,785 men for 365 days at \$0.59.

You see, tuberculosis patients get eggs and milk.

Mr. Sisson. What size Army are you figuring on?

Col. HANNAY. One hundred and seventy-five thousand.

Mr. ANTHONY. The Surgeon General was probably figuring on 250,000, was he not?

Col. HANNAY. The figures for 175,000 contemplate 985 men who will receive commutation of rations at actual cost of rations plus 100 per cent—they are the tuberculosis patients—and 6,797 men in nontuberculosis hospitals who will receive commutation of rations at actual cost of rations plus 40, 30, or 25 per cent, according to the capacity of hospital.

Mr. Sisson. The figures you gave were based on the Surgeon General's figures for twelve hundred and some odd men?

Col. HANNAY. No, sir; they were based on these figures.

Mr. Sisson. You had better look at the record. I think you used the figures "twelve hundred and some odd."

Col. HANNAY. If I put that in the record in that shape I was giving the figures for 280,000, the first figures I read.

Mr. Sisson. You had better make the correction in the record, because if you do not it will cause confusion. I am sure the number you gave in the record was based on the 280,000 men.

Col. HANNAY. Yes, sir; except the last figures which I gave; they are for 175,000. For an Army of 175,000, it is estimated that 985 will be sick in tuberculosis hospitals and 6,797 in nontuberculosis hospitals.

Mr. SLEMP. You figured your original amount of money without deducting the sick number, or when you made your estimates on 175,000 men originally you did not make any reduction on account of the estimate of the number that would be sick?

Col. HANNAY. Yes, sir; we deducted that.

Mr. SLEMP. Then there is no duplication?

Col. HANNAY. No, sir.

SUBSISTENCE TO APPLICANTS FOR ENLISTMENT WHILE TRAVELING.

Mr. ANTHONY. Here is a small item for applicants for enlistment traveling. How much are you asking for that?

Col. HANNAY. \$72,057.

Mr. ANTHONY. Last year you only estimated \$2,250 for that purpose?

Col. HANNAY. Yes, sir. The office of The Adjutant General states that it is contemplated that there will be 96,000 men who will require one meal at 75 cents each.

Mr. ANTHONY. If a man writes in and wants to apply for enlistment you forward him money to come to the recruiting station?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. He is given the expense of his travel and subsistence?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Even if he is rejected?

Col. HANNAY. Yes, sir.

Mr. Sisson. Suppose he comes in, is examined and accepted, and then decides that he will not enlist; what do you do then?

Mr. ANTHONY. You charge that up to profit and loss, do you not?

Capt. CHAPPELL. There is a decision handed down by a court in Illinois that he can be prosecuted for fraud.

Mr. Sisson. A man might change his mind. He might come in with the intention of entering the service, but after being examined he might change his mind honestly.

Capt. CHAPPELL. If he promises to enlist and does not keep his promise, I think he can be prosecuted in the courts.

Mr. ANTHONY. If, as is probable, the Army is reduced under the present number, which would mean a reduction in the estimates of The Adjutant General as to the number to be recruited, this item could be very materially reduced, could it not?

Col. HANNAY. It is on the basis of 175,000 men.

Mr. CRAMTON. It is estimated upon the basis of 96,000 enlistments?

Mr. ANTHONY. We estimated that 96,000 would apply.

Mr. CRAMTON. On the basis of a total Army strength of 175,000?

Col. HANNAY. The Adjutant General's office estimate was that 200,000 would enlist, but we cut it to 96,000 on the basis of 175,000 men in the Army.

Mr. SLEMP. You have an Army of 220,000 men, with 60 per cent enlisted for a term of three years, and, therefore, you have 130,000 already running over the coming year. I suppose that a certain percentage of the 1-year men would come in, and you could not require very many beyond that number.

Col. HANNAY. I believe, if the Army is reduced that much, this could be reduced materially.

Mr. SLEMP. To a nominal amount?

Col. HANNAY. Yes, sir.

Mr. CRAMTON. Would not a great many of the men drop in to the recruiting offices and take the examination?

Col. HANNAY. This estimate is based on the actual experience in the past.

Mr. CRAMTON. Would not the bulk of them simply drop into the recruiting offices and apply for enlistment?

Col. MARTIN. The estimate of 96,000 men is correct, and you will require that amount of money even if the Army is cut down to 175,000 men.

Mr. ANTHONY. How much did you use for this purpose last year?

Col. MARTIN. The records will show that.

Col. HANNAY. Under all of these items we were appropriated \$1,474,000.

Mr. ANTHONY. Have you any idea how much was expended for this particular purpose?

Col. HANNAY. No, sir; we will not be able to tell you that.

Mr. ANTHONY. You have not that information here?

Col. MARTIN. Does our record show that? Our records do not show that, Mr. Chairman.

Mr. ANTHONY. If recruiting should be completely at a standstill during the greater part of next year, as it now appears will be probable, would you need this?

Col. MARTIN. Cutting the Army to 175,000 men will not bring it to a standstill, on account of these one-year men going out.

Mr. ANTHONY. You would not be subjected to this expense on account of those who reenlist. The one-year men will be there at the posts.

Col. MARTIN. They will be discharged and will have to be replaced.

Mr. ANTHONY. Do you mean that they will be permitted to go back to their homes?

Col. MARTIN. Their terms of enlistment will be out during the year, because they enlisted for only one year. There will be 65,000 men going out, and they will have to be replaced.

Mr. Sisson. Some of them may reenlist on the spot.

Col. MARTIN. Some of them may.

Mr. ANTHONY. You are going on the basis of having every one of those men return to their homes and apply for reenlistment, and on the basis of providing this subsistence for every one of them.

Col. MARTIN. No, sir; we do not assume that. We estimate that with an Army of 280,000 men there would be 200,000 enlistments required next year, and if you cut the Army down to 175,000 men there will be 96,000 enlistments required.

Mr. Sisson. Suppose it is reduced to 150,000 men?

Col. MARTIN. Then it would be less.

Mr. Sisson. How much less?

Col. MARTIN. We will have to figure that out. It would probably be 75,000.

Mr. Sisson. The ratio does not fall so rapidly.

Mr. Cramton. Is not the estimate of 96,000 enlistments based on having to make this payment to every recruit you get?

Col. MARTIN. Yes, sir; and that is the only safe basis that we can work on.

Mr. Cramton. Does your past experience justify you in estimating that 100 per cent of the recruits will have to be furnished with transportation to the recruiting point? In other words, it does not seem that you will need to recruit 96,000 men next year; but if you estimate on 96,000 recruits next year, are you justified in estimating that you will be required to make this payment to 100 per cent of those recruits? For instance, a great many men who are now in the service will reenlist on their discharge, and, as I understand it, they do not get this money?

Col. MARTIN. No, sir.

Mr. Cramton. Suppose a boy up in my county in Michigan goes down to Detroit on his own volition, because he has the idea that he wants to enlist in the Army, and goes into the station, makes his application, and is examined, do you, thereupon, refund him for his expense incurred in coming on there?

Col. MARTIN. No, sir.

Mr. Cramton. There must be a great percentage of enlistments made in that way.

Col. MARTIN. This pay goes for transportation from the recruiting station to the depot, or to the post where the man is assigned.

Mr. ANTHONY. No; this item is simply for subsistence for applicants for enlistment.

Col. MARTIN. I get the point there. Mr. Chairman, these men that call at the stations are sent either to their posts or into the depots for enlistment. They are applicants until they get in.

Mr. ANTHONY. That puts a different light on it. That is a new recruit?

Col. MARTIN. Yes, sir.

Mr. ANTHONY. He is considered an applicant until he finally gets to his organization?

Col. MARTIN. Yes, sir; until he gets to his organization, or gets into shape to be enlisted.

Mr. ANTHONY. If, as Mr. Cramton suggests, a man reenlists immediately upon discharge, while at his post or organization, then you would not be subjected to this expense?

Col. MARTIN. No, sir; but that is an assumption.

Mr. ANTHONY. Do you not think that that will probably be the case in a majority of instances, or that a considerable percentage of your enlistments will be reenlistments on the part of 1-year men when their terms expire?

Col. MARTIN. Of course, that may be so.

PERCENTAGE OF REENLISTMENTS.

Mr. SLEMP. What is the percentage of reenlistments?

Col. MARTIN. Our last figures show that about 29 per cent of the men being discharged were reenlisted.

Mr. SLEMP. That would bear out what Mr. Cramton says. What is the breakage as to your 3-year enlisted men, or your annual loss due to resignations, sickness, discharge, or offenses of some kind?

Col. MARTIN. The wastage of the 3-year men?

Mr. SLEMP. Yes.

Col. MARTIN. For the Army it runs about 10 per cent.

Mr. ANTHONY. With an Army of 220,000 men, you have 130,000 enlisted for three years and 90,000 enlisted for one year. The loss on the 130,000 men would be 13,000, leaving about 120,000 men of that 3-year class who would run over into next year. Then, 20 per cent wastage of the men enlisted for one year would amount to 18,000 men, so that you would have an Army of 140,000 men without any trouble at all.

Maj. CARMODY. In this connection, you estimate that the men who reenlist will reenlist at their posts, but the majority of them will go back home and go to a recruiting station for reenlistment.

Mr. Sisson. He returns to his home for a vacation?

Maj. CARMODY. And you must subsist him from the time he is accepted until he goes back.

Col. MARTIN. He does not go back to the post, but he goes to his home.

Mr. ANTHONY. That is because he takes advantage of that situation. However, if there are only a few places left in the Army for reenlistments you could provide that when a man's term of enlistment expires he shall reenlist right at the place where he is located.

Col. MARTIN. Yes, sir.

SUBSISTENCE OF GENERAL PRISONERS TRAVELING.

Mr. ANTHONY. The next item is for subsistence of general prisoners traveling. What are you asking for that?

Col. HANNAY. \$7,084.

Mr. ANTHONY. That charge is pretty well fixed from year to year, is it not?

Col. HANNAY. That is estimated on past experience. It is estimated that an average of 11 prisoners will require commuted rations during the year 1922.

Mr. ANTHONY. Upon what sized Army is that figured?

Col. HANNAY. 175,000 men.

SUBSISTENCE OF NURSES AT HOSPITALS.

Mr. ANTHONY. The next item is subsistence for nurses at hospitals. What do you ask for that?

Col. HANNAY. We are asking \$387,704. Do you care for the details of that?

Mr. ANTHONY. Yes; how many nurses are estimated for?

Col. HANNAY. The Surgeon General's office, by first indorsement dated July 30, 1920, estimated the number of nurses for the fiscal year 1922 on duty in tuberculosis hospitals to be 208, who will receive commutation of rations at the actual cost of the ration plus 100 per cent, and 1,477 nurses on duty in nontuberculosis hospitals, who will receive commuted rations at the actual cost of the ration plus 40, 30, and 25 per cent, according to the bed capacity of the hospitals in which they are stationed.

SUBSISTENCE OF OFFICERS OF MINE PLANTERS.

Mr. ANTHONY. The next item is for subsistence of warrant officers of mine planters. What are you asking for their subsistence?

Col. HANNAY. We are asking \$52,012. That is for 50 warrant officers of mine planters for 365 days at \$1.25 per day, and 50 warrant officers for mine planters for 365 days at \$1.60 per day. There are two grades in that service.

Mr. ANTHONY. That is based on the actual number of warrant officers to be in the service next year?

Col. HANNAY. Yes, sir.

Mr. SLEMP. Are you keeping up an organization for planting mines?

Col. HANNAY. Yes, sir.

Mr. SLEMP. You really do not do any of that work, do you?

Col. HANNAY. They are in the Coast Artillery.

ADVERTISING.

Mr. ANTHONY. For advertising you are asking how much?

Col. HANNAY. We are asking \$1,321.

Mr. ANTHONY. That is purely for advertising for subsistence supplies?

Col. HANNAY. Yes, sir; purely for subsistence supplies throughout the country.

PRIZES FOR SCHOOL GRADUATES.

Mr. ANTHONY. The next item is for prizes for school graduates. How much are you asking for that?

Col. HANNAY. \$900.

Mr. ANTHONY. What schools are referred to here?

Col. HANNAY. The schools at Camp Dix, Camp Dodge, Camp Gordon—

Mr. ANTHONY (interposing). What is the character of the schools?

Col. HANNAY. They are cooks' and bakers' schools.

TWINE, PAPER BAGS, LUMBER, TESTING MATERIALS, ETC.

Mr. ANTHONY. For other necessary expenses, etc., you are asking how much?

Col. HANNAY. \$78,786.

Mr. ANTHONY. What does that consist of?

Col. HANNAY. Twine, paper bags, excelsior for packing cases, lumber, testing materials, and other miscellaneous expenses.

Mr. ANTHONY. How much are you asking for customs duties?

Col. HANNAY. \$3,885.

Mr. ANTHONY. Where are you paying that?

Col. HANNAY. We pay that, for instance, on matches, tobacco, etc., in the Philippine Islands.

Mr. ANTHONY. You pay customs duties to the Philippine Government on all such articles transferred and used for the support of the Army over there?

Col. HANNAY. Yes, sir.

LOSSES ON SUBSISTENCE STORES.

Col. ANTHONY. How much do you carry for your item of losses on subsistence stores?

Col. HANNAY. We carry \$144,356, or one-half of 1 per cent of the subsistence purchases.

Mr. ANTHONY. That is for the supplies that deteriorate in storage?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. And that may be accidentally destroyed?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. So that on your revised estimates, based on an Army of 175,000 men, you have reduced your estimate for subsistence to how much?

Col. HANNAY. To \$36,575,370.

SUBSISTENCE TO ENLISTED RESERVE CORPS.

Mr. ANTHONY. Do you include the Enlisted Reserve Corps?

Col. HANNAY. Yes, sir; the act of June 4 provides for an Enlisted Reserve Corps.

Mr. ANTHONY. But we have none at this time?

Col. HANNAY. No, sir.

Mr. ANTHONY. How much are you figuring will be necessary for that purpose?

Col. HANNAY. We are figuring our estimate on a ration for the members of the Enlisted Reserve Corps on active duty.

Mr. ANTHONY. How much?

Col. HANNAY. \$314,685.

Mr. Sisson. What is the occasion for subsisting those men? Is that for the Enlisted Reserve Corps that comes into camps for training?

Col. HANNAY. They are trained for a period of 15 days in each year.

Mr. Sisson. How many have you?

Mr. ANTHONY. They have none at this time.

SUBSISTENCE TO WEST POINT CADETS ATTENDING INAUGURAL CEREMONIES.

Mr. ANTHONY. You have the following new language:

And for extraordinary expenses of subsistence of West Point cadets while attending inaugural ceremonies not to exceed \$9,000, which shall be immediately available.

Does that simply cover the subsistence of the cadets?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. While away from the academy?

Col. HANNAY. Yes, sir. That is for 1,000 cadets at \$3.18 for four rations, plus \$1.50.

Mr. ANTHONY. \$3.18 for the entire three days?

Col. HANNAY. For each man for a day.

Mr. Sisson. Then you have not enough money. Nine thousand dollars will not quite pay it.

Col. HANNAY. It is \$9,500, but we are asking for only \$9,000.

Mr. ANTHONY. Do the West Point cadets always attend the inaugural ceremonies?

Col. HANNAY. They have since I can remember.

REVISED ESTIMATE.

Mr. SLEMP. I want to ask you about this sheet that you have handed us. You have here for subsistence an estimate of \$42,346,154.62.

Col. HANNAY. That is for 175,000 men. This is not our estimate.

Mr. SLEMP. Of course the original estimate of \$64,490,295 was for 280,000 men?

Col. HANNAY. We did not estimate this.

Mr. SLEMP. I will call your attention to this sheet in which you give this estimate of the enlisted strength. Of that amount, \$4,687,614 is represented as constant and \$36,907,900 is represented as variable. That is dependent, I presume, upon the number of enlisted men. Did you make any change in these constant figures here in your revised estimate of \$36,000,000?

Col. HANNAY. We have made changes in our revised estimates in every item.

Mr. SLEMP. How much reduction is represented on that sheet, or how much is carried in this \$36,000,000?

Col. HANNAY. I can not answer that question, because we do not know what the Chief of Finance did.

Gen. LORD. We took the constants as reported by the officers charged with the preparation of estimates. The reduction in this table from 280,000 to 175,000 men affected the variables only. The number 175,000 is five-eighths of 280,000, and therefore we reduced the vari-

ables by three eighths, so that the reduction in this for the appropriation under consideration is not as much as the reduction they make themselves. We have not in this estimate affected their constants at all.

Mr. ANTHONY. You have given us an estimate of the subsistence required for 175,000 men, and it is practically \$5,000,000 less than the figures furnished before.

Mr. SLEMP. How does that come in?

REDUCTION IN COST OF RATION.

Mr. ANTHONY. Gen. Rogers informed us at the beginning of the hearings that he expected to be able to reduce the cost of the ration for the coming year to 42 cents, which is considerably under the actual cost of the ration to-day.

Mr. SLEMP. I wish you would furnish an itemized statement of what is represented by this \$4,687,614 that is carried as a constant. I want to know whether in your revised estimates any change is made in that.

Capt. CHAPPELL. We gave the constant according to the value of the ration, and it was taken at 54 cents, but figuring the value of the ration at 42 cents the constant can be reduced.

Mr. SLEMP. I do not think that would be a reduction of any constant, would it?

Mr. ANTHONY. In the matter of subsistence, the constant would be the cost of storage and cost of handling the goods.

Capt. CHAPPELL. We have 75 Indian scouts and we have the Philippine Scouts. They represent a constant without regard to the strength of the Army. That would be the same whether we had 175,000 men in the Army or 280,000 men.

Mr. ANTHONY. How would the Philippine Scouts represent a constant? Would they not vary with the number of enlisted men?

Capt. CHAPPELL. The Adjutant General stated there would be 9,690.

Mr. ANTHONY. As a matter of fact, they have about 6,000.

Mr. SLEMP. The 175,000 men includes the Philippine Scouts, does it not?

Col. HANNAY. Yes, sir.

Mr. SLEMP. Then, your reduction on account of subsistence would come on the variable propositions, and not on the constants.

Col. HANNAY. Yes, sir; we can reduce the constant according to the value of the ration.

Statement showing constant items of subsistence based on 42 cents per ration for 175,000 men, assuming strength of Philippine Scouts to be 9,690, as stated in letter of Aug. 4, 1920, from The Adjutant General.

Rations for civilian employees.....	\$28,287
Rations for hospital matrons.....	2,828
Rations for student nurses.....	45,946
Rations for Indian scouts.....	11,487
Supplies for food chests.....	1,324
Subsistence of masters of transports.....	8,027
Subsistence of officers of transports.....	202,000
Subsistence of crews of transports.....	1,002,700
Rations for members of Enlisted Reserve Corps on active duty.....	314,000

One extra ration or commutation thereof for noncommissioned officers of the first three grades, Enlisted Reserve Corps, as authorized in acts approved May 18, 1920, and June 4, 1920-----	\$59, 937
Rations for Philippine Scouts-----	906, 883
Rations for flying cadets-----	456, 250
Commutation of rations to—	
Cadets, United States Military Academy-----	512, 460
Warrant officers, Mine-planter service-----	52, 012
Members of Enlisted Reserve Corps traveling to and from active duty-----	213, 286
Extraordinary expenses of subsistence of West Point cadets while attending inaugural ceremonies-----	9, 000
Advertising-----	1, 321
Prizes for school graduates-----	900
Total-----	3, 741, 423

Mr. SLEMP. I wish you would furnish an analysis of those figures. I want to ask Gen. Rogers a question along general lines in reference to this chart here that has been worked out by the Department of Labor, in which there is shown a variation during the past year in prices. The comparison of prices is made here with the prices of 1913, the prices in 1913 being represented by 100. January, 1920, is represented by 250, and in May that figure runs up to 290, as compared with 1913, those figures representing the cost of food supplies, etc. Then the prices take an almost vertical fall from there down until October, which is represented by 200.

Gen. ROGERS. I do not know how they arrived at that.

Mr. SLEMP. In this downward progress, where do you stop in your estimates?

Col. HANNAY. Our curve in the cost of the ration from 1914 has a slightly upward trend to 1915, increasing in 1916, jumping to 33 cents in 1917, to 48 cents in 1918, to 49.75 cents in 1919, and is 55.67 in 1920. There it starts to decline.

Mr. SLEMP. What has been the experience since then?

Col. HANNAY. There was a rise in June, and then a steady decline.

Mr. SLEMP. But we are still about 200 per cent above what we were in 1914?

Col. HANNAY. Yes, sir.

Mr. SLEMP. And your estimates are based upon that theory—that is, that this 200 per cent valuation will be your standard for purchases next year?

Col. HANNAY. It is a little less than 100 per cent. We figure on 42 cents.

Mr. SLEMP. On what food value is the estimate based—on 150 or 175?

Col. HANNAY. It is practically 100 per cent over 1914.

Mr. SLEMP. You are estimating your subsistence next year upon the theory that the cost of food will be more than 100 per cent greater in 1921 than in 1913 and 1914?

Col. HANNAY. A little less than 100 per cent. It is as 24 to 42 cents.

Mr. SLEMP. In 1913 it was what?

Col. HANNAY. Twenty-four.

Mr. SLEMP. And it was 23.41 in 1914?

Col. HANNAY. Yes, sir.

Mr. SLEMP. Your estimate for next year is based upon a valuation of a little more than 100 per cent greater than in 1913?

Col. HANNAY. No, sir; a little less.

Mr. ANTHONY. In looking over the past appropriations, it appears that in 1916 we had about 100,000 men.

Gen. LORD. There were 100,185 men.

Mr. ANTHONY. And the cost of subsistence for that year was, roughly, \$10,000,000. That was for 100,000 men. On the same basis, 150,000 men would cost you \$15,000,000. Assuming that the ration has doubled in cost, the amount would be \$30,000,000 for 150,000 men now. How do you account for the other \$6,000,000?

Gen. ROGERS. We figured on 175,000 men.

Mr. ANTHONY. But in proportion to the number of men that we had in 1916, and figuring the increased cost of ration at 100 per cent—

Col. HANNAY (interposing). In addition to that, Congress has provided additional rations for certain grades, which is quite an item.

Mr. ANTHONY. That is, you have additional people that have been provided for by legislation and that you have to subsist?

Col. HANNAY. Yes, sir. Certain grades draw two rations instead of one.

Based on an Army of 175,000 men the following would be entitled to an additional ration, as authorized in act of May 18, 1920, as amended by act of June 4, 1920:

First grade (0.6 per cent)	1, 050
Second grade (1.8 per cent)	3, 150
Third grade (2 per cent)	3, 500
Total	7, 700

Mr. Sisson. I notice in this statement you have "appropriated fiscal year 1921 for 175,000 men," and you have a total cost of \$32,000,000. I presume that was the ratio of cost.

Col. HANNAY. That is the total appropriated and the other was estimated.

Mr. Sisson. The \$32,000,000 was estimated?

Col. HANNAY. \$36,000,000, in round numbers, is our estimate, and the \$32,000,000 in 1921 was the amount appropriated, which is just enough by half.

Gen. LORD. The amount estimated was \$48,835,741.02.

Mr. Sisson. And they cut it to \$32,000,000?

Gen. LORD. Yes, sir.

Gen. ROGERS. You see, we must ask for a deficiency appropriation

REGULAR SUPPLIES.

Mr. ANTHONY. The next item is "Regular supplies," for which the estimates call for \$67,920,408, and there was appropriated for the current year \$28,000,000. Can you tell us how much money you have used for this purpose or how much has been allotted during the present year?

DEFICIENCIES FOR FUEL, FORAGE, AND ICE.

Col. HANNAY. The amount appropriated was \$28,000,000. The estimate was \$42,450,000. We have incurred deficiencies on fuel in excess of the amount.

Mr. ANTHONY. Only on fuel?

Col. HANNAY. Fuel, forage, and ice, these three items.

Mr. ANTHONY. To how large an amount?

Col. HANNAY. To the sum of \$17,835,330 for this year.

Mr. ANTHONY. You purchase coal out of this item?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. In the beginning of the hearing I referred to a provision which it has been recommended we incorporate in respect to the purchase of coal. That should go in under this paragraph, should it not?

Col. HANNEY. Yes, sir.

Mr. ANTHONY. Has that been considered by the Quartermaster Department?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Have you a recommendation in regard to it?

Gen. ROGERS. I recommended that provision there; in fact, it was written by me—the memorandum that Senator Calder sent to you. I simply sent it up by the officer who went before his committee to show the steps I was taking.

Mr. ANTHONY. It is a proviso which in substance authorizes the Quartermaster General to make contracts or incur obligations for fuel, forage, subsistence, and clothing in sufficient quantities to meet the requirements of one year without reference to the current fiscal year, and payment for supplies delivered under such contracts made from funds appropriated for the fiscal year in which the contract is made, or from funds appropriated or which may be appropriated for such supplies for the ensuing fiscal year, and it is strongly recommended by Senator Calder who has been at the head of the committee investigating the coal situation in the country. The real reason for that, Gen. Rogers, is that at certain periods of the year you can contract more favorably for your coal supply than at other times, as I understand it.

Gen. ROGERS. It will enable me to make contracts more nearly in the same manner they are made in commercial life.

Mr. ANTHONY. Instead of making your contracts soon after July 1, when your fiscal year begins, this would permit you to make your contracts for the entire ensuing year in the spring of the year when, as you say, new bases for miners' wages, etc., are made.

Gen. ROGERS. Yes; the wage scales are made at that time.

Col. HANNAY. The law at present prohibits our obligating funds for one fiscal year prior to their becoming available. That would be the principal difficulty in our doing it at present.

Mr. ANTHONY. This covers clothing as well as other quartermaster supplies. Do you think the same argument applies to forage, subsistence, and clothing?

Gen. ROGERS. It would apply to fuel, forage, subsistence, and clothing.

Col. HANNAY. It would make it specific and authorize the Quartermaster General, for instance, to buy canned goods during the pack, or anything like that, obligating the funds for the future year in the interest of economy.

Gen. LORD. And possibly obligating funds of a new Congress.

Col. HANNAY. For such articles only as deficiencies can be incurred in when necessary.

Mr. ANTHONY. Will you insert your recommendation in the record?
Gen. ROGERS. Yes, sir.

Provided, That hereafter when, in the opinion of the Quartermaster General, it is in the interest of the United States so to do, he is authorized to enter into contracts and incur obligations for fuel, forage, subsistence, and clothing in sufficient quantities to meet the requirements for one year without reference to the current fiscal year, and payment for supplies delivered under such contracts may be made from funds appropriated for the fiscal year in which the contract is made or from funds appropriated, or which may be appropriated, for such supplies for the ensuing fiscal year.

Mr. Sisson. This proviso does not cure this of being legislation and you can not carry substantiative legislation on an appropriation bill?

Gen. ROGERS. Can you not, sir, when it will decrease expenditures?

Mr. Sisson. You ask me a most difficult question, because there are two rulings under the Holman rule. If you follow Judge Saunders' decision, this is in order. If you follow Finis Garrett's decision, it is clearly not.

Gen. ROGERS. In my opinion this will decrease expenditures.

Mr. Sisson. But it will not be in order unless it decreases the amount carried in the face of the bill. It has got to carry a substantive decrease in the face of the bill and has got to show in its express terms and not be speculative or theoretical.

Mr. ANTHONY. What you state I think is the strict construction of the Holman rule.

Gen. ROGERS. There is no question in the world but what this provision would enable us to make our contracts, as I said before, the same as they would make them in commercial life.

Mr. Sisson. General, what do you think of the policy of mixing the appropriations for one fiscal year with the next?

Gen. ROGERS. It would not mix them up at all, sir, so far as that goes. It would simply enable me to make a contract and if the contract was made on the 1st of April——

Mr. Sisson. After this bill passes.

Gen. ROGERS. After this bill passes it would enable me to make the contract and the expenditure for three months of the contract would be made out of this year's appropriation.

Mr. Sisson. The current appropriation?

Gen. ROGERS. Yes; and the balance of the contract would come out of this appropriation.

Mr. Sisson. In other words, you would not obligate the next year's appropriation with the contract. You would obligate the current appropriation, but your contract would go over and would be an obligation when this appropriation becomes available.

Gen. ROGERS. Yes, sir.

Gen. LORD. There is no question but what the restriction under which the Quartermaster General is operating now does mean an additional expense to the Government.

Mr. Sisson. I have no doubt of it, because he can not take advantage of the best market; but it virtually destroys the whole appropriation law so far as you are concerned.

Col. HANNAY. There would not be any payment, of course, of funds of one fiscal year in another.

Mr. Sisson. I realize that. Your contract, however, would obligate funds prior to the time they become available.

Gen. ROGERS. I think the more nearly the Congress allows the supply organization of the Army to make our contracts and make our purchases and do business the way they do in commercial life, the quicker we will get on a business basis.

Mr. Sisson. It is true, perhaps, that we might put this provision on if it only affected this appropriation. It might be put in such language as would make it a limitation and not make it permanent. If it went in under this language it would become permanent.

Gen. ROGER. This would be permanent; yes, sir.

EXPENDITURES FOR REGULAR SUPPLIES.

Mr. ANTHONY. Colonel, you have prepared an itemized statement of the different expenditures under the head of "Regular supplies."

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Will you insert that in the record?

Col. HANNAY. Yes, sir.

(The statements referred to follow:)

Regular supplies.

Item No.	Name of item.	Apportioned fiscal year 1921 for 175,000 men.		Estimated fiscal year 1922 for 150,000 men.		Estimated fiscal year 1922 for 175,000 men.		Estimated fiscal year 1922 for 280,000 men.	
		Amount.	Capita.	Amount.	Capita.	Amount.	Capita.	Amount.	Capita.
0132.104	Civilian employers, construction service (utilities) in connection with heating and lighting, etc.	\$1,638,947.00	\$9.365	\$2,796,688.62	\$18.644	\$2,796,688.62	\$15.981	\$2,796,688.62	\$9.988
0202.104	Printing, including certificates for discharged soldiers.	311,757.00	1.781	268,111.00	1.787	311,757.00	1.781	434,718.34	1.55
0203.104	Power, heat, electric current, for light and for moving-picture machines, purchase of.	1,844,255.00	10.538	3,091,678.18	20.611	3,091,678.18	17.666	3,091,678.18	11.041
0205.104	Care and protection of regular supplies.	151,734.00	.867	214,378.00	1.429	247,110.00	1.412	352,152.75	1.257
0611.104	Laundries, maintenance and repair of buildings, including repair of machinery.	189,314.00	1.081	154,642.00	1.03	165,374.08	.944	165,374.08	.59
0612.104	Post bakeries, maintenance and repair of buildings.	15,185.00	.086	29,277.00	.185	29,277.60	.167	29,277.60	.104
0613.104	Ice plants, maintenance and repair of buildings, including operation thereof.	52,180.00	.298	84,638.00	.564	84,638.88	.483	84,638.88	.302
0604.104	Heating apparatus (other than stoves), maintenance and repair in offices, hospitals, barracks, quarters, and recruiting station.	598,464.00	3.419	669,836.00	4.465	669,836.00	3.827	669,836.00	2.388
0605.104	Electric wiring and fixtures in structures other than hospitals, maintenance and repair.	132,487.00	.757	668,061.61	4.453	668,061.61	3.817	668,061.61	2.385
1008.104	Reservation of mules, maintenance and repair.	8,298.00	.047	115,336.00	.768	115,336.00	.659	115,336.00	.411
1109.104	Furniture, textbooks and equipment for post schools and libraries and schools for noncommissioned officers and instrumentals, furniture, stationery, and other authorized articles for officers' schools.	23,261.00	.133	23,261.00	1.55	23,261.00	.133	41,680.66	.148
1107.104	Typewriters, purchase, exchange, and repair.	16,665.00	.095	13,733.00	.091	15,969.50	.091	15,969.50	.057
1108.104	Mess furniture, tableware, commissary chests, and issue outfits.	421,113.00	2.406	421,113.00	2.807	421,113.00	2.406	632,795.40	2.259
1109.104	Appliances for cooking and serving food, purchase and maintenance.	9,618.00	.054	17,139.00	.114	18,480.00	.105	28,035.52	.10
1110.104	Ranges and cooking stoves and parts thereof.	88,063.00	.503	185,792.00	1.238	185,792.00	1.061	269,285.20	.901
1111.104	Field ranges, purchase and maintenance.	2,694.00	.015	2,694.00	.017	2,694.00	.015	4,338.41	.015
1112.104	Bake ovens and apparatus, purchase and maintenance.	22,664.00	.129	19,491.00	.129	22,664.00	.129	41,698.40	.148
1113.104	Rolling kitchens, purchase and maintenance.	75,374.00	.43	118,172.00	.787	118,172.00	.675	171,265.09	.611
1114.104	Coffee roasters, purchase and maintenance.	2,705.00	.015	2,288.00	.015	2,661.61	.015	2,661.61	.009
1115.104	Heating stoves and parts thereof.	35,465.00	.202	77,683.00	.517	77,683.00	.443	112,585.68	.402
1116.104	Appliances for handling and preparation of fuel.	33,421.00	.191	28,742.00	.191	33,421.00	.191	66,540.00	.237
1118.104	Picket rope, blacksmiths' tools, farriers' tools, and material and shoeing of horses and mules.	160,357.00	.916	160,357.00	1.009	160,357.00	.916	172,828.56	.617
1119.104	Office furniture and filing equipment.	88,233.00	.504	101,607.00	.677	118,148.00	.675	171,229.60	.611
1120.104	Laundries, operation of, including free laundry service for enlisted men.	2,593,521.00	19.82	5,069,319.00	33.928	5,069,319.00	29.081	7,375,825.92	26.342
1205.104	Incandescent lamps, parts, and supplies.	.....	.....	190,748.00	1.271	190,748.00	1.089	190,748.00	.681
1206.104	Candles, matches, and soap, issue.	184,888.00	1.056	233,030.00	1.553	233,030.00	1.331	337,725.10	1.206

1200.104	Modern batteries	4,755,922.00	27.176	12,615,978.00	84.113	13,517,000.00	77.24	18,461,000.00	65.93
1207.104	Gasoline and lubricants for operation of tanks and tractors.	97,247.00	.565	742,000.00	4.947	742,000.00	4.24	1,075,479.81	3.84
1208.104	Forage, including salt and vinegar and bedding for animals and straw for soldiers' bedding	9,203,416.00	52.59	14,474,772.00	96.496	16,068,000.00	91.903	19,000,000.00	67.45
1209.104	Implements, seeds, fat or other expenses for raising forage at remote depots and on military reservations in Hawaii and Philippine Islands	53,995.00	.306	61,802.00	.412	71,863.20	.41	71,863.20	.256
1210.104	Oil lamps and lanterns, including illuminating supplies therefor	163,860.00	.933	194,669.00	1.297	194,669.00	1.112	282,129.00	1.007
1211.104	Engine supplies for modern batteries, lighting plants, and ice plants	11,569.00	.066	9,975.00	.066	11,569.00	.066	17,744.00	.063
1212.104	Ice, for issue to offices, organizations, and preservation of stores	295,447.00	1.688	405,969.00	2.706	405,969.00	2.319	568,391.04	2.101
1213.104	Stationery, including blank books and blank forms for all branches of the Military Establishment except Ordnance Department, Medical Department, and Engineer Corps	502,996.00	2.874	1,163,119.00	7.754	1,163,119.00	6.646	1,485,680.00	6.02
1214.104	Toilet paper, towels, and paper drinking cups for issue to offices	79,142.00	.452	90,178.00	.601	90,178.00	.515	130,693.43	.466
1215.104	Commercial newspapers, relief maps, market reports	500.00	.002	430.00	.002	500.00	.002	3,961.35	.014
1217.104	Newspapers and periodicals	8,559.00	.049	7,353.00	.049	8,560.00	.048	11,622.32	.041
1219.104	Gasoline and lubricants for aeroplanes and airships	2,698,730.00	15.427	172,000.00	1.146	200,000.00	1.142	286,160.00	.95
1220.104	Tools, carpenters' and sailors' sets, ferris, as to organizations	200,100.00	1.143	172,000.00	1.146	200,000.00	1.142	286,160.00	.95
1222.104	Paints and oils for painting tanks	13,903.00	.079						
	Cleaning and preservation material transferred from Ordnance to War base and Storage Service by P. B. & T. Supply (see for No. 29, as amended by No. 48, series 1919)	475,296.00	2.715	475,000.00	3.166	475,000.00	2.715	632,573.60	2.259
0513.104	Post batteries or structures of buildings	12,615.00	.072						
0514.104	Ice plant, structure of buildings	48,149.00	.275						
0705.104	Heating apparatus, other than stoves, installation of in offices, hospitals, barracks, quarters and recruiting stations								
0706.104	Electric wiring and fixtures in structures other than hospitals	218,639.00	1.249	190,000.00	1.326	190,000.00	1.134	190,000.00	.71
	Removal of garbage	73,456.00	.419	147,500.00	.983	147,500.00	.842	147,500.00	.526
	Forage for Reserve Officers' Training Corps			92,742.00	.608	92,742.00	.529	134,410.80	.48
	Reserve Officers' Training Corps equipment	201,436.00	1.151						
	Added by Finance for Reserve Officers' Training Corps	183,840.00	1.05	206,007.09	1.373	239,544.00	1.368	239,544.00	.855
	Total	28,000,000.00	160.00	45,837,409.00	306.582	46,535,694.00	277.34	60,980,804.00	217.82

Mr. ANTHONY. You have this statement prepared on the basis of 175,000 men.

Col. HANNAY. Yes, sir.

Mr. ANTHONY. If we desire to estimate on the basis of 150,000 men, can we make a straight, mathematical deduction?

Col. HANNAY. No, sir; there are more constants in this than the other. We can make up such a statement for you.

Mr. ANTHONY. In that connection, I will ask you to submit a short statement showing the amount by which, in your judgment, it can be reduced on the basis of 150,000 men.

Col. HANNAY. We will put that in the hearings.

FOR CIVILIAN EMPLOYEES IN OPERATION OF HEATING AND LIGHTING
SYSTEMS.

Mr. ANTHONY. The first item is for civilian employees, Construction Service, in connection with heating, lighting, etc. How much are you asking?

Col. HANNAY. We are asking for \$2,796,688.62, which includes all utilities.

Mr. ANTHONY. There was appropriated for that purpose during the current year \$1,600,000. How much money have you actually used for that purpose during the current year?

Lieut. BRILL. I do not know how much has been used so far, but to carry us to the end of the year properly will probably create a deficiency of a little over \$900,000.

Mr. Sisson. Have you any data showing the state of these appropriations?

Lieut. BRILL. These are not appropriations, but items under lump sums.

Mr. Sisson. I understand that.

Gen. LORD. The apportionment made for civilian employees, construction service, in connection with heating and lighting, is \$1,638,947, and I understand it is overdrawn.

Col. HANNAY. We had, of course, very carefully balanced statements made up on December 24 covering all these appropriations. Then, with the known net available balances we figured the future obligations.

Mr. Sisson. If you had those balances here as of December 24, you could then give the committee some idea of the state of the appropriations and the number of months you had used the appropriations and how much you would have to have in the form of deficiencies to take care of the following months, and that would throw some light on the appropriation necessary.

Mr. CRAMTON. If you have a deficiency in your appropriation of \$900,000, you will still have a smaller amount than you are asking for next year.

Lieut. BRILL. That is accounted for by the fact that for the next fiscal year we will have to pay for this sort of service at all Air Service stations, whereas for the present fiscal year it is being paid out of the appropriation for the Air Service of the Army.

Mr. CRAMTON. How much will that amount to?

Lieut. BRILL. It is expected that for the present fiscal year for Air Service stations that will amount to \$692,000.

Mr. ANTHONY. Is this appropriation limited solely to the pay of civilian employees connected with heating and lighting plants.

Lieut. BRILL. I would not say entirely civilian employees in connection with heating and lighting plants.

Mr. ANTHONY. Does it cover all the civilian employees of the Construction Service?

Lieut. BRILL. No, sir; it is just simply employees in connection with the operation of heating and lighting plants and heating and lighting systems; that is, all external systems as well as interior systems.

Mr. ANTHONY. At all the Army posts and cantonments?

Col. HANNAY. At all the Army posts, cantonments, depots, port terminals, and everything.

Mr. SLEMP. What is the rate of pay?

Lieut. BRILL. For any particular section of the country or just the average?

Mr. SLEMP. Just generally.

Lieut. BRILL. It averaged for the year 1920 about 70 cents per hour or \$145.60 per month for electricians; about \$175 for foreman electricians; about 50 cents per hour for electrician helpers. Of course for men like firemen it is less, averaging \$115 per month; for coal passers it is 50 cents per hour. Some external linesmen get about \$175 per month, whereas an ordinary man who does interior work which is not so dangerous and does not require so much knowledge gets about \$130 to \$140 a month.

Mr. ANTHONY. What is the highest-priced civilian employee you have in connection with this service?

Lieut. BRILL. I can not answer that offhand. We will put that in the record.

NOTE.—The highest salary paid a civilian from this appropriation is \$3,000 per year. This is to superintendents of heating or lighting plants, only four of whom receive this sum.

Mr. ANTHONY. Are there any considerable number of high-salaried people?

Lieut. BRILL. No, sir; they are practically all firemen and coal passers. The highest salaried are the superintendents.

Mr. ANTHONY. What do they get?

Lieut. BRILL. Superintendents are paid from \$175 to \$200 per month. I can give you for any particular post the wages paid now. For instance, there is one electrician at Fort Adams who gets \$130 a month. He would be a fairly high-class electrician. At Fort Greble there is one electrician who gets \$150 a month. He is a higher class man than the other and, as these are all civil-service employees, the length of time he has been in the service would have something to do with his salary.

Mr. ANTHONY. Does the Coast Artillery depend entirely on civilian help to operate their electric plants?

Lieut. BRILL. We do everywhere, or we will have to for the coming year, because the reduction in the enlisted personnel leaves none of them available. We will have to depend entirely on civilian personnel.

Mr. ANTHONY. Do you mean the reduction of the enlisted personnel or the Construction Service?

Lieut. BRILL. Of the whole Army. That will affect the Quartermaster Corps and the Construction Service just the same. All our estimates for the next fiscal year are based entirely on civilian personnel because we do not anticipate there will be enough enlisted personnel available to affect the total amount of money required.

Mr. ANTHONY. We have been told that the Coast Artillery, for instance, is constantly training its enlisted men to become electricians, and as they qualify as electricians they are given high noncommissioned grades. Do they not have men of that class who are able to run local light plants?

Lieut. BRILL. Those men, I believe, are entirely employed in the electrical work in connection with the operation of the batteries and their fire-control apparatus, and that sort of thing. Their time can not be taken up with eight hours a day work on a certain job as then they would not be available for use in connection with training in the operation of the batteries.

Col. HANNAY. I would like to inject here that The Adjutant General has directed us that the detail of any enlisted men on any of these duties as fire fighters or any similar purposes, is disapproved, except Quartermaster Corps men and we have not sufficient men to do that work.

Mr. ANTHONY. In other words, you are organizing your fire departments at the different posts entirely of civilians?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. They used to be composed of enlisted men, did they not?

Col. HANNAY. They did.

Mr. ANTHONY. Is not that a rather extravagant method?

Mr. CRAMTON. Are you training the civilians so they can carry a soldier out of a burning building, if necessary, and properly protect him?

Col. HANNAY. Yes, sir.

NUMBER OF ELECTRIC LIGHT PLANTS.

Mr. ANTHONY. How many electric light plants does the War Department maintain?

Lieut. BRILL. I will have to insert that in the record.

NOTE.—The Government owns and operates 36 lighting and power plants.

Mr. CRAMTON. Did you ask, Mr. Chairman, how much of this amount is for construction of new units next year?

Mr. ANTHONY. None of it, as I understand.

Lieut. BRILL. Practically none of it.

Mr. CRAMTON. Then, this construction service is a repair service?

Lieut. BRILL. It is simply the office that is charged with the operation of these utilities.

Mr. CRAMTON. Do I understand that the item transferred from the Air Service is something over \$600,000 for repair and operation?

Lieut. BRILL. Yes, sir.

Mr. CRAMTON. That seems like a very large amount for this service.

Mr. ANTHONY. I wish you would put in the record a statement, if you have not the information available now, of the number of plants.

which have their own electric light plants operated by the Government and the number of those stations where you buy electricity, and what the average cost of the electricity is per kilowatt where you purchase it; in fact, you had better put in a number of those cost figures for different posts.

Lieut. BRILL. I can give you that information for all the National Army camps and they are scattered pretty well over the country.

Mr. ANTHONY. And also give a statement as to what it costs the Government per kilowatt to produce its own electricity where it owns the plant and operates it.

Lieut. BRILL. Yes, sir.

Mr. CRAMTON. Let me ask you again about this item. It reads, "civilian employees, Construction Service utilities in connection with heating, lighting, etc." How do you get any authority under that to purchase current or heat. The third item covers power, heat, and electrical current.

Lieut. BRILL. I was wrong. That is not in this item.

Mr. ANTHONY. Then, I will ask you to put the information I just requested under the head of the third item.

Col. HANNAY. That is entirely for employees.

Mr. CRAMTON. Is there an item of \$600,000 transferred to this item from the Air Service?

Lieut. BRILL. Not transferred to this item but it has been transferred to us and it is estimated that by the end of the year it will be expended.

Mr. CRAMTON. Now, I will have to repeat a little. You have for the current year \$1,600,000, and a deficit of \$900,000 would make \$2,500,000, but you are asking for something over \$2,750,000; why that increase?

Lieut. BRILL. If you take the \$1,600,000 and add the \$900,000 to it, and then add the \$600,000, you will find it comes to more than we are asking for the next fiscal year. For the fiscal year 1922 we will not be given any money from the appropriation, "Air Service of the Army." It will have to come from this appropriation.

Mr. CRAMTON. Now, just keep on this one item for employees. How much was transferred to that from the Air Service?

Lieut. BRILL. For that purpose, the \$600,000 which I mentioned.

Mr. CRAMTON. I do not want you to include power or heat, but just employees.

Lieut. BRILL. No, sir; I am not.

Mr. CRAMTON. Is this \$600,000 for employees in connection with heating and lighting in the Air Service alone?

Lieut. BRILL. Yes, sir.

Mr. CRAMTON. I would like about as much information as you can give me on that item.

Lieut. BRILL. That is what we expect will be spent by the end of the fiscal year.

The original estimate prepared in this office as to the cost of civilian employees for the operation of heating and lighting plants, etc., amounted to \$3,152,264. In this total \$600,000 was included to defray the cost of such activities at Air Service stations. This estimate was prepared in late August, 1920, on the basis of the cost for the fourth quarter of the fiscal year 1921, because that was the only reliable data which was available for the purpose

at that time. This total estimate was reduced in the office of the Secretary of War to \$2,796,788.62, which is the amount presented to Congress. The item for Air Service stations was not reduced proportionately in this office prior to the above statement. Reducing it proportionately makes this item \$530,000, which is the correct figure and which should be substituted for the figure \$600,000 wherever it appears in this connection. This amount is to pay for the following:

Permanent employees:

	Per year.
36 engineers, all kinds.....	\$74, 000. 60
37 electricians and helpers.....	66, 424. 60
115 firemen and coal passers.....	159, 753. 00
2 ice-plant operators.....	2, 000. 00
10 steamfitters.....	16, 120. 00
Total	319, 298. 20

This is a list of the civilians who are actually employed now and who must be retained during the coming year. In addition to this, before the beginning of the next fiscal year the construction of Luke Field, Hawaii, will have been largely completed and its operation and repair will have to be undertaken. This field will be somewhat larger than Mitchell Field, Long Island, is at present, and it is expected that its maintenance and operation will cost approximately the same, viz: \$60,400 per year. In addition to this, Air Service units, for which construction is now under way, will be stationed at Fort Kamehameha and Fort Ruger, Hawaiian Islands. It is expected that these two, together with Luke Field, will cost approximately \$82,000 per year for these activities. The remainder of the \$530,000 is to pay the salaries of such employees as are required only a part of the year, including principally steamfitters, firemen, coal passers, and some few electricians.

PAY OF EMPLOYEES.

Mr. Sisson. In reference to the pay of these employees, as this item is made up entirely of salaries, for instance, what do you pay a carpenter?

Lieut. BRILL. No carpenter is paid from this appropriation.

Mr. Sisson. You do not have any carpenters employed. Do you have any brick masons?

Lieut. BRILL. No, sir.

Mr. Sisson. Then give me a list of the character of employments you pay for out of this item. The only ones you have mentioned specifically have been electricians.

Lieut. BRILL. For instance, at Camp Devens at the present time we are employing a superintendent of heating, a steam-fitting foreman, engineers—

Mr. Sisson. What are you paying those men?

Lieut. BRILL. The superintendent of heating is being paid \$200 a month. Camp Devens is a camp which has a central heating plant.

Mr. Sisson. Does he get his keep?

Lieut. BRILL. No, sir; he is a civilian, and his salary is all he gets.

Mr. Sisson. Do you furnish him with a house?

Lieut. BRILL. No, sir.

Mr. Sisson. You furnish none of these employees with houses?

Lieut. BRILL. No, sir.

Mr. Sisson. In other words, they get nothing but their salaries out of the Government?

Lieut. BRILL. Yes, sir.

Mr. Sisson. You started to mention some other employees.

Lieut. BRILL. The refrigerating operators, who are paid \$125 per month; electrical operators, who are paid \$125 per month; laborers, who are paid 43½ cents per hour; steam fitters, who are paid 80 cents per hour; blacksmiths, and so on.

Mr. Sisson. Take your blacksmiths—how are they paid, by the month?

Lieut. BRILL. By the hour.

Mr. Sisson. How much do you pay them by the hour?

Lieut. BRILL. The chief blacksmith is paid 80 cents an hour and his assistant 65 cents an hour.

Mr. Sisson. Are you arbitrarily governed by the amount which you pay throughout the service or is the amount you pay controlled to any extent by the community in which you employ these men?

Gen. ROGERS. We get as near the local rates as we can, depending on the locality.

Mr. Sisson. I think myself that is absolutely essential, because if you do not you will disturb the labor conditions, to a certain extent, in the various communities.

Gen. ROGERS. Recently I have had an investigation made in connection with watchmen, and I am having an investigation now made in connection with other employees so as to get the wages more nearly the wages of the particular locality. In a report which was made to me the other day I found that in some places they were paying a little bit too much and in other places too little, and I am trying to average them and get them as near the wages of the community as I can.

Mr. Sisson. There is a tendency throughout the country now to lower the scale of wages and, perhaps, justly so. If the price of labor should come down, will that be reflected in your employment?

Gen. ROGERS. Yes, sir.

Mr. Sisson. You will keep in touch with the labor situation?

Gen. ROGERS. Depending on the locality; yes, sir.

Mr. CRAMTON. I evidently do not understand something. I understood the Air Service to say that they had an expenditure of \$600,000 simply for civilian employees in connection with heating and lighting; that means an expenditure of \$37 per enlisted man in the Air Service, an actual expenditure of \$37 for the civilian employees who are engaged in heating and lighting, which I can not understand. There must be something about the item that I do not understand because for the balance of the Army the figure is nothing like that. So I would be very glad if you would put in the record a statement bearing on that point. You have no such expenditure as that, and I think, perhaps, something else is included for the Air Service.

PRINTING, INCLUDING CERTIFICATES FOR DISCHARGED SOLDIERS.

Mr. ANTHONY. The next item is printing, including certificates for discharged soldiers, for which you are asking \$311,757.

Col. HANNAY. That is the same amount that was appropriated; the cut-down amount just covered it.

Mr. ANTHONY. What printing does this include?

Col. HANNAY. It covers printing at the disciplinary barracks, Fort Leavenworth; Jeffersonville, Ind.; El Paso, Tex.; Camp Travis, Tex.; Camp Grant, Ill.; Camp Pike, Ark.; Camp Jackson; Camp Funston, Kans.; Camp Devens, Mass.; Camp Lewis, Wash.; Camp Upton, N. Y.; and Camp Kearney, Calif. These plants do all the printing for the stations named and such other printing as directed by the Quartermaster General. It also covers the printing done at the Government Printing Office and contract printing, such as is authorized by the Committee on Printing.

Mr. ANTHONY. Does this amount vary with the size of the Army?

Col. HANNAY. Not much; no, sir; it is practically a constant.

Mr. CRAMTON. What part of it is for certificates for discharged soldiers?

Col. HANNAY. A small part, approximately \$1,000.

Mr. CRAMTON. What is the object of stating the item in that way?

Gen. ROGERS. I think it is one of those items that has been handed down in the appropriation bills from year to year.

Gen. LORD. The original appropriation was for the printing of certificates of discharged soldiers.

Mr. ANTHONY. Of course, this represents only a part of the printing that is done by the Army.

Col. HANNAY. Yes, sir.

Mr. ANTHONY. For instance, all the schools maintain their printing plants in addition to this?

Col. HANNAY. Yes, sir.

Mr. SISSON. It is a considerable printing item and I do not know what it could consist of to run into so many dollars.

Mr. CRAMTON. If you had taken up the practice of multigraphing these discharge certificates, what would you do with this item of \$311,000?

Col. HANNAY. That is a very small part of it; there are 158,000,000 blank forms printed annually.

Mr. CRAMTON. That indicates the ridiculousness of entitling the item in that way. You would not know what kind of a title to put on it if you resorted to multigraphing your certificates.

PURCHASE OF POWER, HEAT, ELECTRIC CURRENT FOR LIGHTS, AND MOVING PICTURE MACHINES.

Mr. ANTHONY. The next item is power, heat, electric current for light, and for moving-picture machines, purchase of, for which we are asking \$3,091,678.18 for an army of 175,000 men.

Col. HANNAY. Yes, sir.

Mr. ANTHONY. You were allowed \$1,844,255 for the current year. How much has been spent or will be spent under that item?

Lieut. BRILL. \$1,938,880.69 has been obligated. It is estimated that the deficiency under that item will be approximately \$700,000.

Mr. ANTHONY. Under this item I wish you would put in the figures showing the cost of current at the principal camps and the cost of current where the Government produces it.

COST OF ELECTRIC CURRENT.

The cost of electric current purchased at the principal camps is based on a slide scale. For the period from July 1 to November 30, 1920, it was as follows:

	Minimum.	Maximum		Minimum.	Maximum.
Camp Grant.....	\$0.0270	\$0.03267	Camp Lewis.....	\$0.00765	\$0.00804
Camp Dix.....	.02	.02	Camp Sherman.....	.0387	.0392
Camp Meade.....	.0325	.0325	Camp Bragg.....	.0261	.0338
Camp Knox.....	.0269	.0274	Camp Benning.....	.0075	.075
Camp Jackson.....	.025	.025	Camp Normoyle.....	.04	.04
Camp Pike.....	.0206	.0256	Camp Jessup.....	.014	.014
Camp Funston.....	.0358	.0470	Camp Taylor.....	.025	.025
Camp Devins.....	.0304	.0307	Camp Custer.....	.0158	.0165
Camp Travis.....	.04	.04			

¹ Includes service charge paid in July in the amount of \$540 as per contract April 25, 1919.

The cost of the current where generated in a Government owned and operated plant is as follows:

Post.	Popula- tion.	Total.	Cost per kilowatt hour.
			<i>Cents.</i>
Fort Casey, Wash.....	168	\$11,215.85	9.1
Fort Howard, Md.....	242	4,931.67	7.0
Fort St. Philip.....	69	1,769.16	13.4
Fort Dade, Fla.....	231	11,007.60	6.3
Fort Screven, Ga.....	274	6,357.58	9.3
Fort Morgan, Ala.....	220	6,713.47	15.8
Fort Caswell, N. C.....	262	12,139.75	15.6
Fort Columbia, Wash.....	56	2,561.87	11.6
Fort Stevens, Oreg.....	240	11,020.82	13.9
Alcatraz Island, Calif.....	483	7,061.28	2.67
Fort Stanlish, Mass.....	16	1,362.48	25.4
Fort Greble, R. I.....	159	6,985.75	16.3
Fort Strong, Mass.....	228	5,862.50	9.25
Fort Warren, Mass.....	177	7,220.08	9.35
Fort Huachuca, Ariz.....	1,603	8,048.69	2.67
Letterman General Hospital.....	1,470	6,740.00	1.5
Fort Clark, Tex.....	1,186	17,072.10	6.55
Fort H. G. Wright, N. Y.....	540	18,171.24	9.48
Fort Terry, N. Y.....	330	2,182.54	14.61
Fort Michie, N. Y.....	60	2,897.28	17.5
Fort Mott, N. J.....	69	3,452.04	18.76
Grand total.....	8,083	154,773.75	.....

Cost per capita, \$19.14; cost per kilowatt hour, 10.42 cents.

The average cost per kilowatt hour and per capita is as follows: Current purchased, 0.025 to 0.0313 cent. per kilowatt hour average for camps listed above; \$8.95 per capita per year for all posts and stations. Current generated, 10.42 cents per kilowatt hour; \$19.40 per capita per year.

There are a total of 36 Government-owned lighting and power plants. In general these plants are at Coast Artillery posts in isolated locations where it is impossible to purchase current from any local company. Many of them are very small and use gasoline for fuel; others are operated only during the evening; but the fires must be kept banked at all times. This makes the cost of the current produced in the main very high. Exceptions to this are noted at Fort Huachuca, Ariz., where current is generated at 2.6 cents per kilowatt hour; at the Letterman General Hospital, 1.5 cents per kilowatt hour; at Alcatraz Island, Calif., 2.67 cents per kilowatt hour.

It is the policy of this office to purchase current from local companies, wherever that is possible, because it has been found that in general current can be purchased more economically than it can be generated in a Government plant. Current is purchased at 213 posts and stations, while it is generated at only 36.

Lieut. BRILL. That item is also affected by the fact that during the coming fiscal year we will have to pay for that same service at Air Service stations out of this appropriation, whereas in the past, and

including the present year, it has been paid from the appropriation Air Service of the Army.

Mr. ANTHONY. How much does that item amount to?

Lieut. BRILL. Five hundred and fifty thousand dollars.

Mr. ANTHONY. How many moving-picture machines do you propose to purchase under this authority?

Lieut. BRILL. None whatever.

Mr. ANTHONY. Then why is that language inserted?

Lieut. BRILL. It is just the current for moving-picture machines: it is not for the purchase of the machine.

Mr. Sisson. How many have you?

Lieut. BRILL. I can not answer that, sir.

Col. HANNAY. I think the War Department would have to answer that. They have them at every station.

Mr. Sisson. Have they more than one?

Col. HANNAY. They have more than one at the large camps.

Mr. Sisson. I would like to know how many moving-picture machines you are maintaining?

Mr. ANTHONY. We will have to get that information from the recreational branch.

Col. HANNAY. We will endeavor to get it for you.

Lieut. BRILL. The exact number of moving-picture machines owned and operated by the War Department is not available. There are 145 theaters operated in the United States. The equipment of these theaters varies, some having two machines, some only one machine.

Mr. CRAMTON. Where a plant produces its own heat and light from coal is the coal included in this item?

Lieut. BRILL. No, sir.

FOR MAINTENANCE OF LAUNDRIES, ETC.

Mr. ANTHONY. The next item is laundries, maintenance and repair of buildings, including repair of machinery, for which you are asking \$165,374.08, based on an Army of 175,000 men.

Col. HANNAY. Yes, sir.

Mr. ANTHONY. There was appropriated \$189,314 for the current year; how much was expended for that purpose?

Gen. LORD. There was allotted, up to January 4, \$25,243.90.

Mr. ANTHONY. Leaving quite an unexpended balance?

Col. HANNAY. Col. Warfield may be able to tell you about that balance.

Mr. ANTHONY. Can you tell us, Col. Warfield, the state of that appropriation?

Col. WARFIELD. No, sir; that is for repairs to laundry buildings and I have nothing to do with that, but I can tell about repairs to the laundry machinery.

Mr. ANTHONY. This item covers the maintenance of the laundries, the repair of buildings and of machinery, all three of those things.

Col. WARFIELD. I have nothing to do with the repair of buildings, but only have to do with the repair of the laundry machinery.

Col. HANNAY. It is divided into \$88,720 for repairs to buildings and \$76,654.08 for repairs to machinery, which Col. Warfield can explain.

Mr. ANTHONY. Tell us, Col. Warfield, what you propose to do with that amount of money.

Col. WARFIELD. We have at present 58 laundries in operation, and that includes the large ones and the small ones; the large ones are the camp laundries and the small ones are small post laundries, as well as the mobile laundries—those moving about on wheels.

Mr. ANTHONY. They are all steam laundries?

Col. WARFIELD. Yes, sir; they are all steam laundries. Approximately 1,000 of those are small laundering machines. For the maintenance of laundering machinery \$76,654.08 is asked, which is approximately \$1,000 a year per laundry in operation; that is just for the upkeep of the machinery.

Mr. ANTHONY. Does the Army to-day do the laundering for its enlisted men?

Col. WARFIELD. Yes, sir.

Mr. ANTHONY. What do you do at the posts where you have no Government laundries?

Col. WARFIELD. The laundering is done by contract.

Mr. ANTHONY. Out of what appropriation is that paid?

Col. WARFIELD. That comes out of the appropriation of regular supplies.

Mr. ANTHONY. What is the total cost for the contract laundering of enlisted men?

Col. WARFIELD. It costs \$36 a year by contract.

Mr. ANTHONY. Per man?

Col. WARFIELD. Yes; \$3 per man per month, but when we do it in our own laundries it costs us \$24; that is, \$2 per man per month.

Mr. ANTHONY. So, you effect a saving to the Government where you operate laundries?

Col. WARFIELD. Yes.

Mr. ANTHONY. Formerly the enlisted men had to pay for their own laundering?

Col. WARFIELD. Yes, sir.

Mr. ANTHONY. Up to how long ago?

Col. WARFIELD. Until a year ago in March. In a Government laundry we do the work for \$2 per man per month, and it costs us \$3 per man per month by contract.

Mr. Sisson. Do you include in the cost of the laundering, when done in a Government laundry, the repair charges—are they charged up?

Col. WARFIELD. Yes, sir.

Mr. Sisson. Of course, you do not charge the cost of the plant against that?

Col. WARFIELD. The only thing that is not charged is the original cost of the plant; that is, the investment of the Government.

Mr. Sisson. But you do charge all the repairs and the new machinery?

Col. WARFIELD. Yes, sir; everything goes in, even the cost of the heat, light, and coal furnished by the Government.

Mr. Sisson. Who can have laundering done at these laundries?

Col. WARFIELD. Enlisted men, officers, and certain civilian employees who are authorized by the War Department.

Mr. Sisson. Civilian employees, such as electricians, and so on?

Col. WARFIELD. Yes, sir; if they are in the post and there is no civilian laundry anywhere around which they can patronize they are allowed to have their laundering done at the camp laundry, but they pay for it at the same rate that they would pay in a civilian laundry.

Mr. ANTHONY. If there is a civilian laundry in the neighborhood they are not permitted to use the Government laundry?

Col. WARFIELD. No, sir.

Mr. Sisson. Take the officers at a post; is their laundering done and paid for at civilian prices?

Col. WARFIELD. No; the officers pay the Government prices.

Mr. Sisson. Do you fix the Government price at its actual cost?

Col. WARFIELD. Yes, sir; with a very small amount put on for overhead; that is, for the upkeep of the plant.

Mr. ANTHONY. What is the cost of some of the items that go into a man's laundry, as you have figured it up for collars and shirts?

Col. WARFIELD. I have here a comparative statement between the prices we charge and the prices charged by civilian laundries, which might be interesting.

Mr. ANTHONY. You can put that in the record, but tell us now what it costs you to launder a collar or a shirt.

Col. WARFIELD. We do starched collars at 2 cents apiece.

Mr. ANTHONY. What is the civilian price?

Col. WARFIELD. From 5 to 7 cents.

Mr. ANTHONY. What do you charge for a shirt?

Col. WARFIELD. For a pleated shirt, starched, we charge 8 cents, while a civilian laundry charges 17 cents; silk shirts cost 10 cents, while civilian laundries charge 25 cents.

Mr. Sisson. In other words, the men save quite a good deal of money.

Col. WARFIELD. Yes; it averages 50 per cent less in the Government laundries than in the civilian laundries.

Statement showing price charged by Government laundries compared to the average prices charged by commercial laundries.

Name of article.	Price charged by Government laundries.	Average price charged by commercial laundries.	Name of article.	Price charged by Government laundries.	Average price charged by commercial laundries.
Barracks bags.....	\$0.05	.....	Pajamas:		
Bath robes.....	.07	.....	Coats.....	\$0.05	\$0 12½
Breeches, khaki.....	.15	.....	Pants.....	.05	12½
Breeches, khaki, no starch.....	.07	\$0.25	Shirts:		
Blouses, khaki:			Negligee.....	.08	17
Starched.....	.15	.....	Night.....	.07	15
No starch.....	.07	.25	Pleated.....	.08	17
Collars.....	.02	.04	Plain.....	.07	15
Coveralls.....	.10	.....	Silk.....	.10	25
Cuffs, pair.....	.04	.....	Cotton, olive drab.....	.10	..
Drawers:			Wool.....	.10	17
Cotton.....	.05	.10	Wool, olive drab.....	.10	..
Wool.....	.07	.....	Socks:		
Gloves:			Cotton, pair.....	.01	08
Cotton, pairs.....	.03	.....	Wool, pair.....	.03	..
Wool, pair.....	.05	.....	Silk, pair.....	.04	..
Handkerchiefs.....	.01	.03	Stocks.....	.01	..
Handkerchiefs, silk.....	.02	.....	Sweaters.....	.10	.....
Jackets.....	.07	.....	Ties.....	.03	.08
Laundry bags.....	.....	.....	Undershirts:		
Leggins, pair.....	.10	.....	Cotton.....	.03	.10
Overalls.....	.07	.....	Wool.....	.07	.....

Statement showing price charged by Government laundries compared to the average prices charged by commercial laundries—Continued.

Name of article.	Price charged by Gov- ernment laundries.	Average price charged by com- mercial laundries.	Name of article.	Price charged by Gov- ernment laundries.	Average price charged by com- mercial laundries.
Union suits:			Waists, ferris.....	\$0.02	
Wool.....	\$0.10	\$0.20	Wrappers.....	.10	
Cotton.....	.07		Bars, mosquito.....	.05	
Aprons.....	.04		Bed sacks.....	.05	
Aprons, bib.....	.04		Blankets:		
Belts.....	.02		Cotton.....	.10	
Chemises.....	.07		Wool.....	.25	
Collars.....	.02		Bureau scarfs.....	.02	
Combination suits:			Curtains.....	.07	
Cotton.....	.10		Mattress covers.....	.05	
Silk.....	.15		Napkins.....	.01	\$0.02
Corset covers.....	.04		Pillow slips.....	.01	.04
Dollies.....	.01		Rags.....	.01	
Drawers:			Shoets.....	.03	.08
Ladies', muslin.....	.07		Tablecloths.....	.03	.10
Ladies', silk.....	.10		Table pads.....	.05	
Children's.....	.05		Towels:		
Dresses:			Bath.....	.01	.03
Ladies'.....	.20		Dish.....	.01	
Children's.....	.40		Hand.....	.01	.02
Dresser scarfs.....	.10		Roller.....	.01	.03
Dressing sacques.....	.02		Tray cloths.....	.01	
Handkerchiefs.....	.07				
Handkerchiefs, silk.....	.01		NURSES' UNIFORMS.		
Kimonos.....	.02		Nurses' aprons.....	.10	
Middy blouses.....	.07		Nurses' belts.....	.02	
Nightgowns.....	.07	.25	Nurses' caps.....	.03	
Nightgowns, children's.....	.03		Nurses' collars.....	.03	
Pajamas:			Nurses' cuffs, pair.....	.05	
Silk.....	.10	.25	Nurses' dresses, 1-piece.....	.20	
Wool.....	.09		Nurses' waists.....	.10	
Petticoats.....	.10		Nurses' skirts.....	.10	
Petticoats, children's.....	.05				
Rompers.....	.04		MISCELLANEOUS.		
Shirt waists:			Aprons:		
Plain.....	.10		Bakers'.....	.03	
Silk.....	.15		Butchers'.....	.03	
Skirts:			Cooks'.....	.03	
Children's.....	.07		Bedpan covers.....	.02	
Duck.....	.20		Bed pads.....	.05	
Stockings:			Caps, cook.....	.03	
Cotton, pair.....	.02		Cap covers.....	.03	
Wool, pair.....	.03		Coats:		
Silk, pair.....	.04		Fatigue.....	.05	
Sweaters.....	.10		White.....	.07	
Ties.....	.03		Ice-bag covers.....	.10	
Underskirts.....	.07		Operating gowns.....	.10	
Union suits.....	.08		Pneumonia jackets.....	.10	
Union suits, silk.....	.10		Restraining jackets.....	.10	
Undervests:			Trousers, fatigue.....	.05	
Cotton.....	.04		Trousers, white.....	.07	
Wool.....	.05		Spreads, bed.....	.10	.25
Silk.....	.06				
Waists, children's.....	.07				

Mr. Sisson. Are you sure you add enough overhead to pay for the maintenance of the plant and the cost of doing the work?

Col. WARFIELD. We keep a very accurate cost-accounting system of everything that goes into the operation of the laundries.

Mr. Sisson. Do you pay all of the cost of operating the laundries, the repair, and so on, out of this money?

Col. WARFIELD. No; that money comes out of another appropriation and we have not come to that yet. This is just for the repairs to machinery.

Mr. Sisson. Does the money you collect go back into the Treasury?

Col. WARFIELD. Yes, sir.

Mr. Sisson. As miscellaneous receipts?

Col. WARFIELD. Yes, sir; the laundries get nothing at all; it is just turned back into the Treasury.

Mr. Sisson. We ought to pursue the policy pursued by Col. Goethals on the Canal Zone. He had all of these institutions put up for the benefit of the Canal Zone employees, and during the construction of the canal he was able to charge off the building of the commissaries, the cost of the machinery in the laundries, and everything of that sort; he charged that off, and after that had been charged off, of course, the employees on the Zone got the benefit of any reduction in price that might follow, they having paid for the service prior to that time. Of course, in one sense of the word, it may have done the old employees a little injustice, but an effort was made to give every employee on the Canal Zone his clothing, his food, and everything he needed at actual cost, and I think that same policy ought to be pursued, as nearly as possible, in all the Government.

Col. WARFIELD. We turned back nearly a million and a half dollars to the Treasury last year as a result of the operation of the laundries.

Mr. Sisson. How much above your appropriation was that?

Col. WARFIELD. There was no appropriation for laundries: there was no regular appropriation for the operation of laundries.

Mr. Sisson. But a certain amount was allotted for that purpose?

Col. WARFIELD. There was a certain amount given to us.

POST BAKERIES.

Mr. ANTHONY. The next item is post bakeries, maintenance and repair of buildings, for which you are asking \$29,277.60, and there was appropriated for the current year \$15,185. How much was actually used for that purpose?

Gen. LORD. \$25,850.40 has already been allotted.

Col. HANNAY. That means they have had to increase the amount because it was insufficient, over and above the amount we apportioned on this pro rata cut; it shows that the amount appropriated, on a percentage basis, was insufficient, as shown in our tables.

OPERATION OF ICE PLANTS.

Mr. ANTHONY. The next item is ice plants, maintenance and repair of buildings, including operation thereof, for which you are asking \$84,638.88, and \$52,180 was appropriated for the current year. How much was actually expended?

Lieut. BRILL. I will have to insert how much has been expended.

Gen. LORD. There was allotted \$18,182.50.

Mr. ANTHONY. The probabilities are you will not use the full amount of the present appropriation.

Gen. LORD. That does not necessarily follow.

Col. HANNAY. Because not all of the obligations are in as yet.

Mr. CRAMTON. You have asked an increase of 60 per cent.

Lieut. BRILL. That is because a number of the ice plants were constructed during the war and have never been painted, so that the deterioration has been more rapid than it would have been in a permanent building, and it is expected that the repairs will be more expensive than they have been in the past.

Mr. ANTHONY. How many ice plants do you operate?

Lieut. BRILL. I will have to insert that in the record.

NOTE.—The War Department owns and operates 64 ice-making and refrigeration plants. Ice is produced at a cost of \$4.80 to \$5 per ton. The average purchase price of ice, based on contracts which are actually in effect, is from \$7 to \$8 per ton. The approximate consumption of ice per capita per day, including refrigeration manufactured, is 5 pounds.

Mr. ANTHONY. I suppose you only plan to operate them where you produce ice in large enough quantities to pay you?

Lieut. BRILL. Yes, sir.

Mr. ANTHONY. Do you find it best to make your own ice?

Lieut. BRILL. Yes; very distinctly. It costs the Government just about two-thirds as much to produce ice as it does to purchase it, on the average.

MAINTENANCE AND REPAIR OF HEATING APPARATUS.

Mr. ANTHONY. The next item is heating apparatus, other than stoves, maintenance, and repair in offices, hospitals, barracks, quarters, and recruiting stations, for which you are asking \$669,836, on the basis of an Army of 175,000 men; there was appropriated \$598,464 for the current year. How much have you actually expended?

Gen. LORD. The allotment on January 4 was \$325,552.13.

Mr. ANTHONY. Are you going to use all of the amount which was appropriated for that purpose?

Lieut. BRILL. Yes, sir; I think so. A large part of the repairs are not represented there because of the fact that they have not been reported yet, and in late December the hardest use of the heating plants begins.

Mr. ANTHONY. When an allotment is made on January 4 for this purpose how far ahead is that allotment made?

Gen. LORD. The Quartermaster General would continue to make allotments as fast as obligations are incurred; that would be the ordinary procedure, but there are certain cases where obligations may be incurred and the allotments follow the obligations. But this shows, I will say, an expenditure up to December 1 of approximately \$325,552.13.

Mr. ANTHONY. Undoubtedly you will use all the amount appropriated?

Lieut. BRILL. Yes, sir; I think so.

Col. HANNAY. As Gen. Lord stated, that is practically a half year's allotment, and the biggest cost is coming in the last half, as it involves the repairs.

Mr. ANTHONY. Is this for the purchase of new heating apparatus or merely for maintenance?

Lieut. BRILL. It is merely for maintenance and repair. That item would normally have been less for next year than for this year except for the addition of the Air Service stations.

Mr. ANTHONY. At nearly all of the large camps, or wherever divisional headquarters are located, you have central heating plants?

Lieut. BRILL. No, sir. There are only two of the large camps which have been retained that have central heating plants; the rest are heated by means of steam-heating plants located in small build-

ings adjacent to the buildings being heated, and in many cases they are heated by stoves.

Mr. ANTHONY. What do you find to be most economical for heating one of these wooden barrack buildings, such as were erected during the war? Do you not find it unsatisfactory to heat them from big central heating plants?

Lieut. BRILL. I can not answer that.

Mr. ANTHONY. Is there anybody here who has looked into that?

Col. HANNAY. I will insert that in the record.

NOTE.—There are three types of central heating plants in use, viz:

- (1) Central heating plant in which condensate is wasted.
- (2) Central heating plant in which condensate is returned to boilers.
- (3) Central heating plant in combination with power plant which uses exhaust steam for heat.

Local conditions largely determine whether or not it is economical to install and operate a central heating plant, the grouping of the buildings and the contour of the ground being the main features. A post where the buildings are closely grouped and at an elevation above the boiler house offers many advantages for the economical operation of a central heating plant, because the water of condensation can be returned to the boilers by gravity. This is necessary for the most economical operation of the plant. A central heating plant which utilizes the exhaust steam from the power plant for heating purposes is the most economical way of heating the post.

Each individual case, where it is proposed to install a central heating system, must be made a subject of careful study before any decision can be reached as to whether such an installation could be economically operated. The local conditions, especially the contour of the ground and the closeness of the grouping of the buildings, are the determining features, and each case must be determined upon its own merits. No general statement as to whether or not central heating plants are more economical than individual heating plants can be made.

The wooden barracks, built during the war, were heated during that period by stoves at a less cost than it would have cost to heat them from a central plant. This is true because the barracks were only heated during the evening when the men occupied them, and were not heated during the day when the men were at drill. Also the entire building was not properly heated, the area adjacent to the stove being the only portion kept comfortably warm. It is believed that under favorable local conditions buildings of this type could be kept at a uniform temperature satisfactory for peace-time occupation more economically from a central heating plant than by using stoves. Local conditions here would have to be largely considered.

Mr. ANTHONY. I had in mind a camp constructed to house 30,000 men during the war, and which has in it now possibly four or five thousand men. Is it not a waste to operate a big central heating plant under conditions of that kind?

Lieut. BRILL. At all but two camps we do not have those large heating plants, but individual heating plants.

Mr. ANTHONY. Where are the two camps?

Lieut. BRILL. At Camp Devens and Camp Grant.

Mr. ANTHONY. Do you know how many men are at Camps Devens and Grant now?

Lieut. BRILL. No, sir.

Col. MARTIN. There are 3,000 at Camp Devens and about 7,000 at Camp Grant.

ELECTRIC WIRING AND FIXTURES.

Mr. ANTHONY. For electric wiring and fixtures in structures other than hospitals, maintenance and repair, you are asking \$668,061.60, and \$132,487 was appropriated for the current year. How much have you expended for that purpose?

Gen. LORD. The allotment is \$280,559.50.

Mr. ANTHONY. In connection with each one of these items, I wish you would put in the same information I have requested as to whether the amount appropriated last year was sufficient.

Mr. SLEMP. Upon what theory do you make an allotment in excess of the appropriation for this purpose?

Gen. LORD. This is simply an apportionment or allotment made out of the lump-sum appropriation made for the Quartermaster General.

Mr. SLEMP. Was that an appropriation by Congress last year or an allotment by your organization?

Gen. LORD. Congress did not specify the amount for each item, but they gave so much money for regular supplies. This itemization shows how we reach the estimate.

Mr. SLEMP. Where do you indicate it in here as appropriated?

Gen. LORD. That is a wrong term, and it should be referred to as allotted.

Mr. CRAMTON. What was the estimate last year for this purpose?

Col. HANNAY. \$198,750.

Mr. CRAMTON. You have spent more than that for half the year.

Col. HANNAY. Yes, sir.

Mr. CRAMTON. What is the cause of that increase in the allotments?

Lieut. BRILL. The estimate under this item for the fiscal year 1921 was \$361,250.

Gen. LORD. They were not given all that the estimate called for.

Mr. CRAMTON. I am not asking about that estimate now.

Mr. Sisson. I would like for you to answer Mr. Cramton's question. Did you make an estimate for the current year?

Col. HANNAY. Yes, sir.

Mr. Sisson. How much is it?

Col. HANNAY. \$198,750. We did not have it separated in that way last year. Last year it was submitted slightly differently, so that the two figures do not quite agree.

MAINTENANCE AND REPAIRS OF RESERVATION FENCES.

Mr. ANTHONY. For the maintenance and repair of reservation fences you estimate \$115,336, and you had for the current year \$8,298 for that purpose. Why do you estimate so large an increase?

Gen. LORD. There has been \$29,147.75 allotted up to date.

Mr. CRAMTON. Is there any definite information as to what has been obligated up to date?

Gen. LORD. This is the total obligation that appears on the books of the Finance Department up to date, and it should include the entire obligations, except that there may be on the way between the Office of the Quartermaster General and the chief of finance since January 4 other obligations or allotments covering additional obligations.

Mr. CRAMTON. That is how much?

Gen. LORD. The allotment on January 4, under this item for maintenance and repair of reservation fences, was \$29,147.75. That is equivalent to an expenditure, because that money is out in the hands of disbursing officers for a specific purpose.

Mr. ANTHONY. You have practically six months more of this fiscal year, so that in the ordinary course of expenditures the amount would be double that.

Lieut. ADAMS. We are not doing anything like the amount of repair work under this item that is being requested from the field because of the shortage of funds. If we were to do all of the repair work requested from the field and represented by the commanding officers as urgently needed, we would spend probably three times that much money.

Col. HANNAY. I regret to say that Gen. Carson, who has charge of the construction operations, and who was going to explain these items, was injured the other day in an automobile accident, and is unable to be present. I have heard him say that the condition of these fences in the last two years has deteriorated, and that they are in bad shape. As stated, although we are expending more than the average proportion under this item, still we are not expending enough to put those fences in proper shape, and they will soon have to be replaced.

Mr. Sisson. What sort of fences are these?

Col. HANNAY. Reservation fences.

Mr. Sisson. Are they constructed of rock, iron, or wood, or what?

Lieut. BRILL. Most of them are wood fences or fences with wooden posts and wire-mesh fencing. The reservation fences include not only the fences around the reservations but they include all the fences around the corrals, etc., at the remount depots.

Mr. Sisson. How much do you pay per mile for these fences?

Lieut. BRILL. I do not know what they would cost. We are not putting up any.

Mr. Sisson. This would be practically putting up a whole fence. I have to have some of this work done myself, and I know that when you go to repair an old fence you had as well make up your mind to scrap it and build a new one. I was wondering what it would cost per mile to do that.

NOTE.—The type of fence we believe most economical and recommend is a cyclone unclimbable fence with barbed wire at the top, posts of iron pipe set in concrete. This type of fencing was used extensively at camps for stockades, etc., during the war, and was found to be the most satisfactory kind. It is estimated that this fencing would cost \$2.25 per foot, or \$11,880 per mile, erect, it having not yet been materially affected by the decline in prices. Several cheaper types have been used, but they are not as satisfactory.

Mr. SLEMP. Where you exceed your allotment, or where you are expending funds in excess of the allotments set out, do you deduct something from some other allotment or an equivalent amount of money, so as not to create a deficiency?

Col. HANNAY. Yes, sir; we transfer funds between items. This is the nearest approximation that we can give from the data available and in the time available of what our expenditures will be divided as we foresee them. There is no estimate submitted to Congress, and never will be any, that will be absolutely accurate.

Mr. Sisson. If I had control of the appropriations absolutely there would be such estimates submitted, but your estimates would be submitted in different shape from what they are in now. Because under the system I would adopt you would have to know what was

be required, except in the case of a few items that might be problematical.

Gen. ROGERS. I do not see how you could do it. That is not done in commercial life, and I doubt if any big corporations can come any closer to it than we do on these items.

Mr. Sisson. I think that is true.

Gen. ROGERS. If you would allow the wording of the appropriation bills to be changed, as we have tried to have them changed once or twice, and consolidate the items more, I think it would be much less trouble to the committee of Congress.

Mr. Sisson. That would simply increase our difficulty in getting at the cost of the service. I would make the appropriations in even more detail.

Col. HANNAY. If you prepare the bill by items, and will allow us to use the funds so as not to create a deficiency, then, so long as we did not create a deficiency in the total appropriation, you would have a complete explanation of it.

Mr. Sisson. Your last year's estimates, evidently, were very bad guesses. For instance, in one of these items I presume you were given a certain amount of money and you allotted \$8,298 for this purpose. It appears, however, that you have already spent \$20,000, so that your guess or estimate was a very bad one.

Col. HANNAY. They were made by a separate construction service.

Mr. Sisson. I am not blaming anybody for it, but that is the result.

Mr. CRAMTON. The difficulty that appeals to me under this system is this: We may go over these items and form some opinion in regard to them. For instance, we might cut out this fence item entirely, and reduce the total appropriation by that much. Then you could take the total appropriation and divide it up in such a way as to double the amount for the fence item.

Mr. ANTHONY. All these items of regular supplies are included here in this lump-sum appropriation?

Gen. LORD. Yes, sir.

Mr. ANTHONY. Is all of that to be expended as a lump sum?

Gen. LORD. Yes, sir; all of it can be expended as one general appropriation.

Mr. ANTHONY. Then, no matter how carefully we itemize this appropriation, the amount you allot for one item can be expended for another?

Gen. LORD. Yes, sir; unless you place a limitation upon it.

Mr. Sisson. For instance, we could say that nothing shall be expended for reservation fences.

Gen. LORD. We prepare in July, August, and September of one year an estimate that must reach the Treasury Department by the middle of October, for expenditures that we do not begin to make until the beginning of the next year, and with the chaotic conditions and flux that must affect the Army, it seems to me that this is a pretty intelligent and accurate estimate.

Mr. Sisson. That still does not answer the question. It may be that it is the entire fault of Congress, but I am thoroughly convinced that the present condition of affairs ought not to exist. For instance, we have a Congress elected in November, and it actually convenes,

unless a special session is called, more than a year later, in December. It does not attempt to function until more than a year later. Even if a special session is called, you have a Congress that has been repudiated and an administration that has been repudiated still functioning at one session of Congress. That necessitates the making of appropriations at least six months in advance, or more than six months in advance of the beginning of the fiscal year, or eighteen months before the year ends. That, of course, makes it absolutely essential in making your estimates, especially for food supplies and coal, to make them largely as a matter of guess, because the market for such things will in all probability be materially affected before the end of the year. Those things can not be avoided.

However, that would not apply to these items, because there are some items that you could determine to spend a certain amount of money for. For instance, we could put civilian employees in an item by itself, and we might limit you to a certain number of civilian employees. However, under this system you could drop out a dozen of these items and spend twice as much as was estimated for civilian employees if, in your judgment, it were better to employ civilian employees than to perform some other functions. Therefore Congress is not controlling your appropriation.

Mr. SLEMP. Have you created a deficiency in the total amount appropriated by Congress last year for general supplies of the Army?

Col. HANNAY. Yes, sir.

Gen. LORD. There is no deficit.

Col. HANNAY. Not in general appropriations, Quartermaster Corps, as made by Congress.

Mr. SLEMP. I mean in the sum total of these items for which Congress appropriated a lump sum.

Col. HANNAY. No, sir; we have not. I would like to say on the question of fuel that the appropriation is inadequate and that we have had to take money from these other items for that purpose.

Mr. SLEMP. My question was whether you have created a deficit in the total appropriation?

Col. HANNAY. No, sir.

Gen. LORD. May I reenforce what the Quartermaster General has said? This Army appropriation bill is as veritable a piece of patchwork legislation as ever troubled the statute books. It is necessary to have it revised. It is something that has grown up and been added to from year to year. There is phraseology in it that means absolutely nothing; there is duplication of effort and duplication of expenditures. That is one of the things that it is expected will be done under the budget system, but there has been no opportunity heretofore to do it. It is a man's job to rewrite and revise it, but it is something that should be done. Mr. Anthony, the chairman of the committee, has known that for some time, and we have discussed it.

Mr. CRAMTON. The observation I made awhile ago was not made in criticism of you gentlemen, because you are operating under a bad system, but I was speaking of the difficulties that confront us.

Mr. Sisson. I think that Congress is altogether to blame.

FURNITURE, TEXTBOOKS, AND EQUIPMENT FOR POST SCHOOLS,
LIBRARIES, ETC.

Mr. ANTHONY. The next item is for furniture, textbooks, and equipment for post schools and libraries and schools for noncommissioned officers and for instruments, furniture, stationery, and other authorized articles for officers' schools.

Col. HANNAY. We are asking there for the same amount that was appropriated last year.

Mr. ANTHONY. This is for what we call the old post schools?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. That is for both enlisted men and noncommissioned officers, and, also for commissioned officers?

Col. HANNAY. Yes, sir.

Mr. SLEMP. Do you mean that the same amount is to be allotted?

Col. HANNAY. We were allotted for this purpose \$23,261, and we asked \$31,495. We believe that is sufficient for this year, and we are asking for the same amount next year.

Mr. Sisson. You used \$23,261?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Do they still maintain those post schools, notwithstanding the activity of the vocational-training work that is being carried on?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Those post schools are carried on entirely by the Army?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. For officers and enlisted men?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. You have no civilians there?

Col. HANNAY. No, sir. This purchases the textbooks, stationery, furniture, and equipment.

Mr. ANTHONY. The next item is for the purchase, exchange, and repair of typewriters.

Mr. Sisson. I would like to know something about the educational training that they give in these schools. For example, how much do you spend for textbooks?

Col. HANNAY. Under the revised estimates, that amount is \$7,425.

Mr. Sisson. Or somewhat more than one-third of the allotment is spent for books?

Col. HANNAY. Yes, sir. \$2,167 is for furniture and school equipment.

Mr. Sisson. What sort of libraries do you maintain at these posts?

Col. HANNAY. We maintain small libraries for the enlisted men, consisting of novels, periodicals, etc.

Mr. Sisson. How much additions do you make to the libraries each year, or how much do you spend out of this fund for books for the library?

Col. HANNAY. We have not spent any money out of this fund except for textbooks.

Mr. Sisson. Although you can spend it for library books?

Mr. ANTHONY. You could not build up many libraries out of it?

Col. HANNAY. No, sir.

Mr. ANTHONY. Your libraries are maintained from different sources?

Col. HANNAY. Yes, sir. Congress provides for periodicals in another item.

PURCHASE, REPAIR, AND EXCHANGE OF TYPEWRITERS.

Mr. ANTHONY. The next item is for the purchase, exchange, and repair of typewriters.

Col. HANNAY. This is solely for repairs. There are no new typewriters to be procured. We expended in the fiscal year 1920 \$20,000 out of this item.

Mr. ANTHONY. Have you any surplus typewriters remaining over from the purchases made during the war?

Gen. ROGERS. I do not know how large a stock we have on hand, but we have turned over a great many to the General Supply Committee. They will furnish them to other departments of the Government.

Mr. ANTHONY. And you have retained those you actually need for the activities of the Quartermaster General's office?

Gen. ROGERS. Yes, sir.

Mr. Sisson. I have gone into this subject repeatedly while serving on another committee. Will you put in the record a statement showing the number of typewriters you have on hand?

Gen. ROGERS. I will do so.

Mr. Sisson. And the number you have turned over to the General Supply Committee.

Gen. ROGERS. I will include that.

(The statement referred to above follows:)

STATEMENT SHOWING NUMBER OF TYPEWRITERS ON HAND AND NUMBER TURNED OVER TO THE GENERAL SUPPLY COMMITTEE.

Purchased since April 6, 1917, 75,331.

(a) The number of typewriters on hand in the Quartermaster Corps, as shown by annual reports of June 30, 1920, forwarded by each depot and each department quartermaster, is 53,764.

(b) The number of typewriters turned over to the General Supply Committee since June 30, 1920, to date is 5,533.

(c) This office has no records to show how many typewriters were shipped to France.

(d) The number of typewriters returned from France is 2,506.

(e) The number of typewriters left in France is unknown.

Mr. ANTHONY. Do you remember how many typewriters went to France with the American Expeditionary Forces?

Gen. ROGERS. I do not think we had more than half a dozen, or something like that. I know they had a very small stock.

Mr. ANTHONY. The reason I asked that is because the matter was brought to my attention by an American citizen who was traveling in France a few months ago. He stated that he attended a sale of American military goods that was being conducted by the French Government. It appears that they were selling material which they purchased in the settlement. He said that the material included a considerable number of typewriters that were in storage in warehouses in boxes. They were American typewriters, and they went at a nominal price because the French could not use our typewriters, although they were in first-class condition. He said he purchased

them and shipped them over to London and sold them at a very large advance over what he paid the French Government for them. I was wondering why an item of that kind could not have been returned to this country.

Gen. ROGERS. I do not know about the typewriters. We returned a great many things that we thought we would need in the Army, but I do not know about that. I will have to look that up.

Mr. Sisson. There must have been a considerable number of typewriters sent with our forces.

Gen. ROGERS. I was talking about Gen. Pershing's headquarters.

Mr. Sisson. I have no idea how many field clerks there were, but I think all of them used typewriters.

Gen. ROGERS. I thought the chairman was asking about those at Gen. Pershing's headquarters.

Mr. ANTHONY. I meant the number sent over as quartermaster stores for the use of the Army.

Gen. ROGERS. I was thinking about Gen. Pershing's headquarters. They did not have enough there.

Mr. ANTHONY. Can you furnish information as to how many were shipped over there?

Gen. ROGERS. Yes, sir; I can give you that. Do you want the total number of typewriters furnished the American forces?

Mr. ANTHONY. Yes; in France. We want to know, also, how many were left over there and how many were brought back.

Mr. CRAMTON. Not including the Peace Commission.

MESS FURNITURE, TABLEWARE, COMMISSARY CHESTS, AND ISSUE OUTFIT.

Mr. ANTHONY. The next item is for mess furniture, tables, commissary chests, and issue outfits, for which you are asking \$421,113. There was allotted for that purpose the same amount during the current year?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. How much do you estimate you will expend of that?

Col. HANNAY. We have not the total expenditures for 1921, but we can have the expenditures brought down to date.

Mr. ANTHONY. How much did you expend in 1920?

Col. HANNAY. \$340,000. During the war we did not procure or did not issue this mess furniture.

Mr. ANTHONY. Does this include furniture furnished to commissioned officers?

Col. HANNAY. No, sir. This includes commissary chests, cooking outfits, mess tables, mess stools, field-baking equipment, china, glassware, etc. It is the miscellaneous equipment that is used in barracks and not procured during the war. Consequently we have an inadequate supply on hand.

Gen. LORD. There has been allotted \$280,352.

Mr. Sisson. It looks as if you would accumulate a supply of some of these things that would be used indefinitely.

Col. HANNAY. China breakage is a big item.

Mr. ANTHONY. You estimate \$185,792 for ranges and cooking stoves, and parts thereof. Did you not accumulate quite a supply of those things during the war?

Col. HANNAY. We did of certain sizes, but we did not procure them of certain other sizes. The 3 and 3-A are for the officers and noncommissioned officers, but we are buying none for organization messes. Practically all of this is for spare parts. We have a large number which must be kept up. The only ones we are buying are to equip officers and noncommissioned officers' houses. We did not buy them during the war.

PURCHASE OF FIELD RANGES, BAKE OVENS, ETC.

Mr. ANTHONY. For the purchase and maintenance of field ranges you estimate \$2,694.

Col. HANNAY. Yes, sir; that is for maintenance.

Mr. ANTHONY. For the purchase and maintenance of bake ovens and apparatus, you estimate \$22,664.

Col. HANNAY. We are asking that the same amount we had last year be appropriated.

PURCHASE AND MAINTENANCE OF ROLLING KITCHENS.

Mr. ANTHONY. For the purchase and maintenance of rolling kitchens you estimate \$118,172. Did you not have a big supply of rolling kitchens left over from the war?

Col. HANNAY. Yes, sir; and we sold some. This is for spare parts. We found a considerable deterioration in them.

Mr. ANTHONY. How many rolling kitchens do you keep on hand—in reserve?

Col. HANNAY. Six thousand.

Mr. ANTHONY. But you do not use the reserve stock at all, and you want to use this appropriation to maintain those in actual operation?

Col. HANNAY. Yes, sir; it is for repair parts.

Mr. ANTHONY. I suppose the same reason applies to the next two items.

Col. HANNAY. In the matter of coffee roasters, we found that we could save money by roasting our own coffee. The same thing applies to heating stoves, it is for maintenance and repair.

APPLIANCES FOR HANDLING AND PREPARATION OF FUEL.

Mr. ANTHONY. For appliances for handling and preparation of fuel, you estimate \$33,421.

Col. HANNAY. That is for wood-sawing machinery, oil tanks for fuel oil, and things of that kind. It also includes sawing machinery and machinery for handling coal and for unloading coal.

PICKET ROPE, BLACKSMITH'S TOOLS, ETC.

Mr. ANTHONY. The next item is for picket rope, blacksmith's tools, farriers' tools, and materials and shoeing of horses and mules. Your estimate is \$160,367. You have expended the same amount.

Col. HANNAY. Yes, sir; that is the amount we will spend. We had on hand great quantities of some things, and so we are asking for no horseshoes. If we did not have those things on hand, it would cost us approximately \$500,000.

Mr. ANTHONY. How much have you expended up to date?

Gen. LORD. The allotment to January 4 was \$45,281.66.

OFFICE FURNITURE AND FILING EQUIPMENT.

Mr. ANTHONY. For office furniture and filing equipment, your estimate is \$118,148. What is the necessity for the purchase of new equipment of that kind?

Mr. SLEMP. Referring to that other item, it seems to me that if you were only allotted \$45,000 to January 4, out of \$160,000, you will not use your \$160,000.

Col. HANNAY. We will use it. For this year we have had horse-shoes on hand of all sizes. Do you mean the present fiscal year?

Mr. SLEMP. Yes.

Col. HANNAY. As the chief of finance will explain, that will really not show the condition that will confront us before the end of the fiscal year.

Gen. LORD. When an obligation is actually incurred, it should be followed by an allotment.

Col. HANNAY. Had we known that you wanted the expenditures we could have given them up to date.

Mr. SLEMP. Of what advantage is this?

Mr. CRAMTON. We are quite at sea.

Mr. ANTHONY. We want to know what it has actually cost during the current year under these heads.

Gen. LORD. The expenditures can only be determined when the actual vouchers come to the office of the chief of finance, showing the actual expenditures.

Mr. ANTHONY. Can we get those figures for 1920?

Gen. LORD. Yes, sir; you can get them.

NOTE.—Statement of detailed expenditures by appropriations on file with Committee on Appropriations.

Mr. CRAMTON. If we had the obligations it would be of some help.

Mr. SLEMP. Does the \$45,000, allotted up to January 4, represent what has been expended as well as what has been obligated? According to the director of finance's statement the expenditures would necessarily follow the obligations.

Col. HANNAY. That might be set up as a reservation against these figures which the director of finance would not have.

Mr. SLEMP. There ought to be a very intimate working relationship between those two departments.

Col. HANNAY. There is no trouble about that.

Gen. LORD. They follow very promptly by setting up the actual obligation with an allotment to cover it.

Mr. SLEMP. You had allotted only \$45,000 up to January 4, and for the next six months you must allot more than twice that amount in order to cover an expenditure of \$160,000. I was asking you to check up to see if it was correct.

Mr. ANTHONY. Under the next item for office furniture and filing equipment you are asking \$118,148. There was allotted for that purpose for the current fiscal year \$88,233. How much did you actually spend during the fiscal year 1920?

Gen. LORD. The allotment against that to January 4 was \$99,295.70, or more than their apportionment.

Mr. ANTHONY. That is for the purchase of office furniture and equipment all over the world, wherever the Army may be?

Col. HANNAY. Yes, sir. The major part of this is to be for the procurement of filing cases resulting from the enormous amount of records supervening from the war, including the financial and war records of Gen. Pershing's Army, which are enormous, and have to be preserved.

Mr. Sisson. I thought they were preserved in the Adjutant General's Office.

Col. HANNAY. But we procure the filing cases.

FOR OPERATION OF LAUNDRIES, ETC.

Mr. ANTHONY. For laundries, operation of, including free laundry service for enlisted men, your estimate is \$5,089,319. Your allotment for the current fiscal year appears to be \$2,593,521.

Gen. LORD. There has been allotted to meet obligations up to January 4, \$2,127,204.62.

Mr. Sisson. What is the state of that account now?

Col. WARFIELD. I am asking for \$5,089,319. That is based on an Army of 175,000 men and at an annual expenditure of \$30 per man: that is what it will cost us to do the laundering for the enlisted men of the Army for the coming year—\$30 for each man.

Mr. CRAMTON. That is a little more than your \$2 a month.

Col. WARFIELD. That is accounted for by a portion of it being done by contract. If we could do it all in the Government-owned laundries we could do it for \$2, but there are certain places where enlisted men are stationed in which we have no laundry facilities.

Mr. Sisson. You ought to have a mighty clean Army.

Col. WARFIELD. We have the hardest time possible to get any civilian laundry to take a contract to do the enlisted men's laundry for more than a month at a time; they will not give us any contract for laundry, because they can not tell about it. Two dollars and fifty cents has been the minimum, and just now it is almost impossible anywhere in the United States to get a laundry of any kind to do the enlisted men's laundry for \$2.50 per man per month, or even \$3: they want as high as \$6 in many cases.

PURCHASE OF INCANDESCENT LAMPS, PARTS, AND SUPPLIES

Mr. ANTHONY. The next item is for the purchase of incandescent lamps, parts, and supplies, for which you are asking \$190,748. There was evidently no allotment for that purpose for the current year.

Col. HANNAY. Last year it was carried in the sundry civil bill.

Lieut. BRILL. That item is made up of the total of all the requests received from the field for that purpose, pared down to a certain extent in our office: that is, each post in the Army reports on a certain form how many incandescent lamps they will require for the coming fiscal year.

Mr. ANTHONY. Do you buy them under one contract?

Lieut. BRILL. Yes, sir.

Mr. ANTHONY. And then they are shipped all over the country?

Lieut. BRILL. Yes, sir.

Mr. ANTHONY. Do you have competitive bids?

Lieut. BRILL. Yes, sir.

Mr. ANTHONY. Do you specify one kind of lamp?

Lieut. BRILL. They are Mazda lamps of various sizes.

Mr. ANTHONY. They are made by a number of manufacturers?

Lieut. BRILL. Yes, sir; no particular manufacturer's make is specified.

Mr. ANTHONY. Is there any competition for the supplying of such lamps?

Lieut. BRILL. Undoubtedly, there would be.

Mr. ANTHONY. I want to know whether there is any competition.

Lieut. BRILL. I do not have any personal knowledge.

Mr. ANTHONY. Who has the knowledge?

Col. HANNAY. We will put that information in the record.

Mr. ANTHONY. I wish you would put in the record the amount the Government pays for 25, 40, 60, and 100 watt lamps.

Col. HANNAY. Very well.

(The statement referred to is as follows:)

Electric lamps are purchased at one time for the entire Army for one year. Specifications are prepared and bids invited from the leading manufacturers of standard makes of the electric-lamp bulbs in the United States. The contract is then awarded to the lowest bidder on unit prices. It very often happens that the General Electric Co. and the Westinghouse Electric Lamp Co. have identical bids and are the lowest responsible bidders. The cost of these lamps for the fiscal year 1921 is as follows:

10 to 50 watt lamps-----	\$0. 21
60-watt lamps-----	. 24
100-watt lamps-----	. 51
150-watt gas-filled lamps-----	. 93
200-watt gas-filled lamps-----	1. 26

These prices include delivery of lamps at any post east of the Mississippi River. It is estimated that the total cost for incandescent lamps, fiscal year 1922, will be approximately \$297,300. This figure includes \$34,500 for lamps for the Air Service. Only \$31,168.38 has been spent from 1921 funds; the remainder of the above total represents the value at the contract rate of the surplus stock on hand at the beginning of this fiscal year.

CANDLES, MATCHES, AND SOAP.

Mr. ANTHONY. The next item is for candles, matches, and soap issue, for which you are asking \$233,030, and you were allotted \$184,888 during the current year.

Col. HANNAY. We had a lot of stuff on hand. This is divided into \$7,345 for candles and \$12,512 for matches.

Mr. ANTHONY. You evidently have a lot of matches on hand.

Col. HANNAY. No, sir; we have not, but we found this sufficient to get along with for matches.

Mr. ANTHONY. I thought the Army match bill used to run considerably larger than that.

Col. HANNAY. But that was for sales matches.

Mr. ANTHONY. When an enlisted man wants a box of matches, he buys it from the post exchange?

Col. HANNAY. Or at the sales store; they are furnished to the organization but they are not furnished to the enlisted men individually.

Mr. ANTHONY. If an enlisted man wants to light a fire in the cook stove, the Government furnishes the matches; but if he wants to light a cigarette or pipe he must furnish his own matches?

Col. HANNAY. That is right. The largest item is \$195,893 for soap issue.

FUEL FOR COOKING, HEATING OFFICES, BARRACKS, ETC.

Mr. ANTHONY. The next item is fuel in kind for cooking and for heating offices, barracks, quarters, storehouses, recruiting stations, and other buildings when authorized; for operation of lighting plants, modern batteries, for which you are asking \$16,349,047, and there was appropriated for that purpose \$4,755,922 for the current year.

Col. HANNAY. We have reduced this item to \$13,517,000. The Quartermaster General, after investigation into the recent bids on the United States Shipping Board's openings, and our best experience during the previous year, during which we paid \$7.70 per ton for bituminous coal and \$8.225 per ton for anthracite, reduced it to this amount. We have an incurred deficiency in coal.

Gen. LORD. The obligations up to January 4, as covered by allotments, were \$14,734,267.58.

Mr. SLEMP. How much anthracite and how much bituminous coal will you use during this fiscal year and how much do you propose to use during the next fiscal year?

Col. HANNAY. It is estimated that we will use 1,435,000 tons of bituminous coal and 300,000 tons of anthracite.

Mr. SLEMP. Does the price you have given represent the coal delivered?

Col. HANNAY. No; that is the figure f. o. b. mines, the majority being so purchased, though some is procured "delivered" and "delivered and stored."

Mr. SLEMP. And then the freight is to be added to that?

Col. HANNAY. Yes, sir.

Mr. SLEMP. What is the basis of your price for bituminous coal for next year, as well as for anthracite coal?

Col. HANNAY. \$7.70 for bituminous and \$8.225 for anthracite.

Mr. SLEMP. Where do you buy your bituminous coal?

Col. HANNAY. The majority f. o. b. mines.

Mr. SLEMP. I mean, in what States?

Col. HANNAY. It is purchased by contract. We had to centralize it this last year in the Quartermaster General's Office.

Mr. SLEMP. When was that estimate made?

Col. HANNAY. That has just been completed within the last two or three days.

Mr. SLEMP. You know you can buy bituminous coal at the mines now for around \$2.

Col. HANNAY. But the trouble is that we can not foresee the coal situation; the agreement between the operators and the miners ends at the end of March, as I recall it, and so far they have been unable to reach another agreement.

Mr. SLEMP. On the supposition that this committee should decide that coal could be furnished at the mines sufficient for your needs at \$2.50 a ton then there would be a saving of \$5 a ton on your 1,600,000 tons?

Col. HANNAY. 1,435,000 tons of bituminous.

Mr. SLEMP. I do not know so much about anthracite, but I think this should be cut at least \$2,000,000.

Col. HANNAY. Our previous estimate was cut and we have incurred a deficiency.

Mr. SLEMP. But that is because you did not purchase the coal back in March and you got into the market later, a market which simply ran out of all bounds. Coal is now selling for \$2 and \$3 a ton.

Col. HANNAY. Our prices for procurements in the open market are lower than under contract.

Mr. SLEMP. That is not the testimony before the Senate committee.

Col. HANNAY. The testimony given by Col. Barney was as to procurements in the open market.

Mr. SLEMP. Coal sold by contract for \$4.25 all over the United States last March.

Mr. ANTHONY. Not all over the United States.

Col. HANNAY. The latest information that we have as affecting this is the opening of the United States Shipping Board, although I understand it has been rejected. Still it was in excess of our estimate. They advertised for 2,300,000 tons.

Mr. ANTHONY. On what date?

Col. HANNAY. The opening was on December 10, and that is the latest large opening we know of.

Mr. ANTHONY. What was the price?

Col. HANNAY. The average price was \$8.72.

Mr. ANTHONY. Delivered?

Col. HANNAY. No; that is f. o. b. mines.

Mr. SLEMP. They need a different coal for steaming purposes than you need.

Mr. Sisson. The highest priced coal is the coal bought for the ships.

Mr. ANTHONY. The cheapest coal sold in my country was around \$6.50.

Mr. SLEMP. I know of some that sold yesterday at \$2.75 and I know of some that was sold for as low as \$2.

Mr. Sisson. And then you can usually multiply the price f. o. b. mines by 2, when you add the railroad freight and other expenses of handling.

Gen. ROGERS. We can buy coal, if we have this provision put in, just as cheap as any other concern in the country, so that it will all depend on what the market price is.

Mr. SLEMP. What do you think of the attitude of the Navy and the Army in regard to confiscating coal?

Gen. ROGERS. I stated my view on that before the committee this morning, when you were not here.

Mr. ANTHONY. You stated this, that you thought the department should have commandeered coal.

Gen. ROGERS. Under those conditions I recommended that the coal be commandeered.

Mr. ANTHONY. To whom did you make that recommendation?

Gen. ROGERS. Through the General Staff to the Secretary of War.

Mr. SLEMP. Are these bids for coal open to the public?

Gen. ROGERS. Yes, sir.

Mr. SLEMP. Do you advertise for bids for coal?

Gen. ROGERS. Yes, sir.

Col. HANNAY. Very thoroughly throughout the whole country.

Mr. Sisson. Do you have your coal tested by the Bureau of Standards?

Gen. ROGERS. Yes, sir. We tried to get coal by advertisements in the beginning, but the operators refused to bid, or almost all of them: we only had one or two, not over three, bids covering practically the entire eastern part of the United States.

Mr. SLEMP. When was that, General?

Gen. ROGERS. Whenever the Secretary decided to stock up, September or October.

Col. HANNAY. I think it was earlier than that.

Gen. ROGERS. Then I sent word out to my depot quartermasters to try and buy in the open market, and we got a small quantity of coal in the open market, but at very high prices, and then after that we had to get it in any way we could, so far as that goes.

Mr. SLEMP. What are you paying for coal now?

Gen. ROGERS. I think we paid as high as \$18.

Mr. SLEMP. What are you paying in January?

Gen. ROGERS. We have practically all of our coal now; we have coal on hand, so that we are not buying any just at the present time. I do not think we got any much lower than \$4, as I remember it, and up as high as \$9.90; that was about the highest price for any large quantity of coal. In some of the out-of-way places we had to pay very high prices. But I think if this authority can be given the Army to buy coal, as I have suggested, that we can buy coal lower than any other concern in the United States.

Mr. ANTHONY. You have based your requirements for coal on the total quantity you are required to supply. An officer is entitled to heat and light, but he can commute that into money if he wishes to do so and is so situated, can he not?

Gen. ROGERS. He can draw his heat and light allowance; yes, sir.

Mr. ANTHONY. Then, of course, you would not have to furnish the actual coal.

Gen. ROGERS. We based it on the amount we figured would be actually used.

Mr. ANTHONY. Outside of furnishing coal for the heating and lighting plants, the Army transports, and actually heating the quarters of officers and enlisted men, what people connected with the Army are allowed to purchase coal at your contract prices?

Gen. ROGERS. Nobody but the officers.

Mr. ANTHONY. Are retired officers permitted to purchase coal?

Gen. ROGERS. I do not know about that.

Col. HANNAY. I do not think so.

Mr. ANTHONY. I wish you would ascertain and insert the information in the record.

Col. HANNAY. We will look that up.

Fuel may be sold to retired officers at cost to the Government, delivered where they reside, at places where it can be done conveniently. (Par. 1037, Army Regulations, 1913, as amended by changes, Army Regulations No. 108, Aug. 14, 1920.)

Mr. ANTHONY. Does this item of \$16,000,000 include the coal for the transport service?

Col. HANNAY. No, sir.

Mr. ANTHONY. You carry that under the item of transportation?

Gen. ROGERS. That will come under transportation.

Mr. SLEMP. Does this include oil, gasoline, etc.?

Col. HANNAY. That comes under the next item.

Mr. ANTHONY. But it does include oil for fuel?

Col. HANNAY. It includes oil for fuel; if it is for heating and cooking it does.

Mr. Sisson. Could you buy gas if gas were accessible?

Col. HANNAY. Yes, sir; if it were for these purposes.

GASOLINE AND LUBRICANTS FOR OPERATION OF TANKS AND TRACTORS.

Mr. ANTHONY. The next item is gasoline and lubricants for operation of tanks and tractors, for which you are asking \$742,080, and there was allotted for that purpose \$97,247 for the current year. Why this tremendous increase?

Col. HANNAY. A great part of that was included in the item for gasoline and lubricants for aeroplanes and airships last year, and the tanks were included therein, but this year the Air Service is estimating for that, so that we have taken the item for tanks and thrown it into this item, and have based this on eight regiments of 155-millimeter motorized artillery, five regiments of 75-millimeter motorized artillery, 750 gallons per day for heavy regiments and 500 gallons per day for light regiments; then we have 18 companies of 24 tanks each.

Mr. ANTHONY. Taking a regiment of motorized artillery, have you figured out what the difference in the cost of gasoline and lubricants would be in comparison with the feed and forage for the number of horses that would be required?

Col. HANNAY. Yes; that has been very carefully figured out, and I will put it in the record if you desire.

Mr. ANTHONY. What does it show—which is the cheapest?

Col. HANNAY. The motorized.

Mr. SLEMP. You do not have that many regiments motorized, do you?

Col. HANNAY. This is for what we have been informed will be motorized.

Mr. SLEMP. How many regiments have you motorized now?

Col. HANNAY. I can not give you that now, but I will put it in the record.

Statement showing number of motorized regiments, Field Artillery, now in the service.

Number of 155-millimeter regiments now in the service.....	8
Number of 75-millimeter regiments now in the service.....	5

Mr. SLEMP. Do you know whether this is based on the production of more tractors?

Col. HANNAY. I think not; I think it is simply based on the motorized units or tractors that they have at present.

Mr. SLEMP. Are you sure of that?

Col. HANNAY. I say I believe that, but I will put it in the record.

Statement showing cost of furnishing gasoline for a motorized regiment compared to cost of forage.

Forage for 1,199 horses, 60 cents per day.....	\$719
750 gallons gasoline per day, 30 cents per gallon.....	225

FORAGE, ETC.

Mr. ANTHONY. The next item is for forage, including salt and vinegar and bedding for animals and straw for soldiers' bedding, for which you are asking \$16,083,080, and there was appropriated \$9,203,416 for the current year.

Col. HANNAY. This is another item which we have overdrawn.

Mr. ANTHONY. What did you actually expend for that purpose in 1920, if you have those figures?

Col. HANNAY. \$17,000,000 for 1920.

Maj. ADAMS. I have the figures for six months.

Mr. ANTHONY. What are they?

Maj. ADAMS. \$9,130,000.

Gen. LORD. There has been obligated \$11,952,442.03.

Mr. ANTHONY. The price of forage has certainly come down, has it not?

Maj. ADAMS. About 15 per cent.

Mr. ANTHONY. What has been your contract price for oats during the last calendar year?

Col. HANNAY. \$2.70.

Mr. ANTHONY. Per hundredweight?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. What was the last contract price you made for oats?

Maj. ADAMS. The current price is 2.1 cents.

Mr. ANTHONY. Why does the Army have to pay at the rate of \$1 per bushel for oats when the farmer who produces them in Kansas, Iowa, or Illinois, gets about 35 or 40 cents on the farm or at the shipping point?

Gen. ROGERS. It is too much for us.

Mr. ANTHONY. What did you say was the last contract price?

Maj. ADAMS. About 2.1 cents per pound.

Mr. ANTHONY. That would be 65 cents a bushel.

Maj. ADAMS. Yes; No. 1 white oats.

Mr. ANTHONY. When was that last figure obtained?

Maj. ADAMS. That was one of the most recent heavy purchases; it varies slightly in different parts of the country.

Mr. ANTHONY. What is the most recent purchase you have made of hay, at what price and where was it made?

Maj. ADAMS. From about 1.7 cents to 1.8 cents per pound.

Mr. ANTHONY. How much would that be a ton?

Maj. ADAMS. About \$34 a ton.

Mr. ANTHONY. Where was that price paid?

Maj. ADAMS. At Chicago.

Mr. ANTHONY. For delivery where?

Maj. ADAMS. I would have to look that up.

Mr. SISSON. What sort of hay was that?

Maj. ADAMS. Timothy No. 1. We have bought some at New York for \$29.90.

Col. HANNAY. The average price we have paid has been \$33.79

Mr. ANTHONY. Last year?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. The market price of hay is about half that price at the present time. On what have you based that price?

Col. HANNAY. On the Market Reporter.

Mr. Sisson. What issue?

Col. HANNAY. December 11.

Mr. ANTHONY. I wish you would put some figures in the record showing the last purchases of hay, oats, and straw, where made and where to be delivered.

Col. HANNAY. Very well.

Statement showing principle purchases of hay, oats, corn, and straw during calendar year 1920.

Date purchased.	F. o. b. points.	Quantity.	Price per hundred-weight.	From whom purchased.
HAY.				
		<i>Pounds.</i>		
Apr. 5	Camp Grant, Ill.....	1,200,000	\$1.68	T. D. Randall & Co., Chicago.
10	do.....	600,000	1.35	W. B. Manchester, Chicago.
16	do.....	600,000	2.65	Van Wie & Moorhead, Chicago.
28	do.....	800,000	1.73	Keelin Bros., Chicago.
June 10	Camp Dix, N. J.....	239,000	2.25	Schaefer & Laux, Brooklyn, N. Y.
14	do.....	239,000	2.00	Woolman & Co., Philadelphia, Pa.
17	West Point, N. Y.....	210,000	2.25	Dickinson & Peek, South Dayton, N. Y.
17	Camps and posts in Texas, New Mexico, and Arizona.	3,257,000	.885	T. C. Edwards, Alvin, Tex.
17	do.....	3,311,000	1.10	Webster Co., San Antonio, Tex.
17	do.....	947,000	.83	J. P. French, Houston, Tex.
17	do.....	2,545,000	1.03	T. J. Martin, Spofford, Tex.
18	Fort Robinson, Nebr.....	800,000	1.10	Dyer & Co., Kansas City, Mo.
18	do.....	800,000	1.55	Leyboldt & Pennington Co., North Platte.
18	Camp Dodge, Iowa.....	1,200,000	1.047	W. B. Manchester, Chicago.
18	do.....	2,764,000	1.05	National Hay Co., Kansas City, Mo.
18	do.....	4,146,000	1.054	Van Wie & Moorhead, Chicago.
25	Camp Lee, Va.....	600,000	4.25	W. E. Dante & Co., New York City.
25	do.....	2,700,000	2.96	Thomas M. Blake, New York City.
25	do.....	2,700,000	2.96	G. W. Gasteiger & Son (Inc.), Brooklyn.
29	Manila, P. I.....	8,562,000	1.76	Producer's Hay Co., San Francisco.
29	Honolulu, Hawaii.....	3,150,000	1.76	Do.
Sept. 1	West Point, N. Y.....	730,000	2.14	Chas. Schaefer & Son, Brooklyn.
9	St. Louis, Mo.....	1,000,000	1.05	Leyboldt & Pennington, North Platte.
18	Army supply base, Brooklyn, N. Y.	988,000	2.04	Chas. Schaefer & Son, Brooklyn.
18	do.....	1,000,000	2.04	Thomas M. Blake, New York City.
2	Camp Dix, N. J.....	4,246,000	2.15	Dickinson & Peek, South Dayton, N. Y.
Dec. 2	Fort Riley, Kans.....	2,391,360	.82	Dyer & Son, Kansas City, Mo.
3	Fort Reno, Okla.....	3,000,000	.97	W. A. Ferson Hay Co., Kansas City, Mo.
14	Camp Dix, N. J.....	6,560,000	1.65	The Early & Daniel Co., Cincinnati, Ohio.
14	Cristobal, Canal Zone.....	796,666	1.68	J. W. Gasteiger & Son, Brooklyn.
14	do.....	796,666	1.68	Bridge & Leonard, Chicago.
14	do.....	796,666	1.62	Schaefer & Laux, Brooklyn.
14	West Point, N. Y.....	730,000	1.64	Bridge & Leonard, Chicago.
17	Camp Meade, Md.....	720,000	1.59	W. D. Manchester (Inc.), Chicago.
23	do.....	2,280,000	1.54	P. Lenane & Bro., New York City.
23	Cristobal, Canal Zone.....	796,000	1.55	W. B. Manchester (Inc.), Chicago.
23	do.....	796,000	1.55	J. W. Gasteiger & Son, Brooklyn.
23	do.....	796,000	1.55	Schaefer & Laux, Brooklyn.
OATS.				
June 10	Front Royal, Va.....	400,000	3.96	J. W. Gasteiger & Son (Inc.), Brooklyn.
14	Camp Dix, N. J.....	177,500	5.29	Schaefer & Laux, Brooklyn.
16	Fort Ethan Allen, Vt.....	952,000	4.60	Bridge & Leonard, Chicago.
17	Camps and posts in Texas, New Mexico, and Arizona, including Fort Sill.	970,000	3.66	West Texas Fuel Co., El Paso, Tex.
17	do.....	3,324,000	3.71	Blue Star Elevator Co., San Antonio, Tex.
17	do.....	3,800,000	3.56	El Paso Grain & Milling Co., El Paso, Tex.
17	do.....	6,100,000	3.64	Heid Bros. (Inc.), El Paso, Tex.
17	do.....	7,220,000	1.46	Do.
18	Fort Robinson, Nebr.....	400,000	3.92	Leyboldt & Pennington Co., North Platte, Nebr.
18	Camp Dodge, Iowa.....	2,532,000	3.62	Do.
18	West Point, N. Y.....	150,000	4.60	Isaac W. Carr & Co., New York City.
29	Camps and posts in Texas, New Mexico, and Arizona.	15,600,000	3.08	The Webster Co., San Antonio, Tex.
29	do.....	5,897,920	3.08	Blue Star Elevator Co., San Antonio, Tex.

Statement showing principle purchases of hay, oats, corn, and straw during calendar year 1920—Continued.

Date purchased.	F. o. b. points.	Quantity.	Price per hundred-weight.	From whom purchased.
OATS—continued.				
		<i>Pounds.</i>		
June 29	Camps and posts in Texas, New Mexico, and Arizona.	2,337,000	\$3.53	San Antonio Grain Co., San Antonio, Tex.
29	.....do.....	828,600	3.138	J. W. Howard, San Antonio, Tex.
29	.....do.....	12,154,540	3.153	El Paso Grain & Milling Co., El Paso, Tex.
30	Front Royal, Va.....	104,300	3.96	J. W. Gasteiger & Sons, Brooklyn, N. Y.
July 22	Camps and posts in Texas, New Mexico, and Arizona.	2,000,000	3.53	San Antonio Grain Co., San Antonio, Tex.
Sept. 1	Front Royal, Va.....	800,000	2.83	W. C. Carter, Front Royal, Va.
14	Salt Lake City, Utah.....	117,760	3.10	Merrill-Kayser Co., Salt Lake City, Utah
18	A. S. B., Brooklyn, N. Y....	869,000	2.53	Chas. Schaefer & Son., Brooklyn, N. Y.
Dec. 3	Fort Reno, Okla.....	2,000,000	1.585	Held Bros. (Inc.), El Paso, Tex.
14	Camp Dix, N. J.....	2,950,000	1.99	P. Lenane & Bros., New York City.
14	West Point, N. Y.....	2,192,000	2.14	Do.
14	Pier 3. Army submarine base, Brooklyn, N. Y.	1,656,000	2.21	J. J. Badenoch Co., Chicago, Ill.
16	Front Royal, Va.....	400,000	2.12	Schaefer & Laux, Brooklyn, N. Y.
16	.....do.....	400,000	2.12	J. W. Gasteiger & Son.
16	.....do.....	164,000	1.58	The Early & Daniel Co., Cincinnati, Ohio
16	.....do.....	472,000	1.86	W. S. Hoge Bros., Washington, D. C.
15	Fort Ethan Allen, Vt.....	918,000	1.85	J. J. Badenoch Co., Chicago, Ill.
17	Camp Meade, Md.....	900,000	1.93	Thomas N. Blake, New York City.
23	.....do.....	2,100,000	1.95	J. J. Badenoch Co., Chicago, Ill.
23	Cristobal, Canal Zone.....	828,000	2.11	Thomas M. Blake, New York City
23	.....do.....	828,000	2.11	Chas. Schaefer & Son, New York City
30	Camp Jackson, S. C.....	640,000	1.70	Held Bros. (Inc.), El Paso, Tex.
CORN				
June 30	Fort Sheridan, Ill.....	11,760	4.00	W. J. Byrnes & Co., Chicago, Ill.
Sept. 1	Raritan Arsenal, N. J.....	5,000	4.00	Chas. Schaefer & Sons, Brooklyn, N. Y.
STRAW.				
Apr. 4	Fort Ethan Allen, Vt.....	184,000	1.50	E. Crosby & Co., Brattleboro, Vt.
June 18	Fort Robinson, Nebr.....	200,000	.75	Leypoldt & Pennington Co., North Platte, Nebr.
18	Fort D. A. Russell, Wyo....	373,000	.70	Tolliver & Kinney, Fort Collins, Colo
Sept. 1	Camp Dix, N. J.....	1,062,000	1.01	Van Orden Hay Co., New York City
18	Army submarine base, Brooklyn, N. Y.	300,000	1.59	Schaefer & Laux, Brooklyn, N. Y.
Dec. 14	West Point, N. Y.....	326,000	1.14	Do.
14	Camp Dix, N. J.....	400,000	.92	P. Lenane & Bros., New York City
16	Camp Meade, Md.....	300,000	.92	Do.
16	Front Royal, Va.....	200,000	.79	W. C. Carter Co., Front Royal, Va
17	Coblentz, Germany.....	210,000	.94	W. M. Galt & Co., Washington, D. C.
22	Camp Meade, Md.....	231,000	.91	P. Lenane & Bros., New York City
23	.....do.....	700,000	.89	W. S. Hoge & Bro., Washington, D. C.

Average price paid for hay, \$1.60 per hundredweight; average price paid for oats, \$2.88 per hundredweight; average price paid for corn, \$4 per hundredweight; average price paid for straw, \$0.99 per hundredweight.

Mr. SLEMP. Your estimates for next year are based on these figures?

Col. HANNAY. They are based on the average price as stated by the reporter.

Mr. ANTHONY. The average price for when?

Col. HANNAY. The average procurements during the last year.

Mr. ANTHONY. Would not that be too high a figure to take for purchases to be made during the next year?

Col. HANNAY. That is something, Mr. Hannay, you would probably know more about than we do; it is the nearest estimate we can get at.

Mr. ANTHONY. You have not made any guess at it?

Col. HANNAY. No.

Mr. Sisson. Do you buy much corn?

Maj. Adams. Very little.

Mr. Sisson. What do you pay for it?

Maj. Adams. The purchases are so small that I will have to look up that price.

Mr. Sisson. I would like to have the corn prices.

Maj. Adams. Very well.

PRICE OF GASOLINE.

Mr. Anthony. What is your present contract price for gasoline?

Col. Hannay. Thirty cents.

Mr. Anthony. A few years ago the Government used to be able to buy its gasoline under contract at considerably less than the retail price, but now you seem to be paying practically the retail price. I buy my gasoline for 30 cents, and why should you pay that much when you buy millions of dollars' worth at a time?

Col. Hannay. We advertise for large quantities.

Mr. Anthony. Do you have competitive bids?

Col. Hannay. We do; yes, sir.

Mr. Anthony. But they all grade up to the regular retail price?

Col. Hannay. Pretty close to the regular retail price.

Mr. Sisson. How much of this is for aeroplanes?

Col. Hannay. None; the Air Service is estimating for its own this year, although last year we estimated for it.

Mr. Anthony. A few years ago you used to get a price for gasoline which was very considerably lower than the retail price.

Col. Hannay. Materially lower; yes.

Mr. Slemm. Are you not selling gasoline at the Government stores for 28 cents?

Col. Hannay. We sell gasoline at those stores at the latest invoice prices.

Mr. Slemm. At 28 cents?

Col. Hannay. At whatever it would cost.

Mr. Anthony. You do not contract for a year's supply, do you?

Col. Hannay. No, sir.

Mr. Anthony. How often is the price fixed?

Col. Hannay. By the quarter; we secure it by quarters generally, and we would not be able to get bids on a yearly supply.

Mr. Slemm. On what price is the estimate for next year based?

Col. Hannay. Thirty cents.

Mr. Anthony. Are you buying gasoline from more than one company at the present time?

Col. Hannay. I will put that in the record, but I think probably we are, although I am not certain.

Mr. Anthony. I wish you would put in the record the names of the companies and the prices paid.

Col. Hannay. Very well.

Principal purchases of gasoline during calendar year 1920.

Date.	Contractor.	F. o. b. point.	Gal- lons.	Container.	Kind.	Unit price.	Total.
Jan. 2	Texas Co.....	Pier 4, Hoboken...	35,000	Steel barrel..	Motor.	\$0.225	\$7,875.00
2	.....do.....	Augusta Arsenal..	2,600	Tank wagon	do...	.235	611.00
6	Standard Oil Co., New Jersey.	Charleston, S. C...	6,500	.....do.....	do...	.205	1,332.50
6	.....do.....	Hospital No. 41, Staten Island, N. Y.	2,000	Steel barrel..	do...	.225	446.00
6	Atlantic Refining Co...	Philadelphia, Pa...	200	W. B.....	do...	.30	60.00
7	.....do.....	.....do.....	8,000	Tank car....	do...	.195	1,560.00
7	Standard Oil Co., Indi- ana.	Whiting, Ind.....	3,000	Steel barrel..	Aero...	.27	810.00
8	Elk Refining Co.....	Langley Field, Va.	48,000	Tank car....	do...	.27	12,960.00
8	Sinclair Refining Co....	.....do.....	48,600	.....do.....	Motor.	.1996	9,700.56
9	Standard Oil Co., New Jersey.	Fort Mott, N. J...	6,000	Tank wagon	do...	.225	1,350.00
12	.....do.....	New York Arsenal	2,000	Steel barrel..	do...	.236	472.00
12	Standard Oil Co., Ken- tucky.	Fort Barrancas, Fla.	10,000	Tank wagon	do...	.22	2,200.00
13	Gulf Refining Co.....	Picatinny Arsenal.	6,000	.....do.....	do...	.225	1,350.00
17	Standard Oil Co., Cali- fornia.	Alcatraz, Calif.....	9,000	Steel barrel..	do...	.195	1,755.00
20	Standard Oil Co., New Jersey.	Fort Hancock, N. J.	8,000	.....do.....	do...	.245	1,960.00
22	Stoll Oil & Refining Co.	Louisville, Ky....	175,000	Tank car....	do...	.21	36,750.00
23	Standard Oil Co., New York.	Gar. No. 5, Gov- ernors Island.	45,000	Steel barrel..	do...	.226	10,170.00
Feb. 21	Standard Oil Co. of New Jersey.	Charleston, S. C...	25,000	Tank car....	do...	.225	5,625.00
20	Gulf Refining Co.....	Lakehurst, Pr. Gr.	7,000	Tank wagon	do...	.245	1,715.00
20	.....do.....	.....do.....	3,260	.....do.....	do...	.245	798.70
19	Standard Oil Co., New Jersey.	Edgewood Arsenal	1,650	Steel barrel..	Aero...	.31	511.50
18	.....do.....	Bristol, Va.....	1,000	.....do.....	Motor.	.275	275.00
14	Atlantic Refining Co...	Camp Knox, Ky...	24,000	.....do.....	do...	.21	5,040.00
14	.....do.....	Philadelphia, Pa...	18,000	Tank car....	do...	.195	3,510.00
12	Standard Oil Co., New Jersey.	Lakehurst, Pr. Gr.	5,000	Tank wagon	do...	.245	1,225.00
9	Atlantic Refining Co...	Philadelphia, Pa...	1,000	.....do.....	do...	.235	235.00
9	Standard Oil Co., Ohio..	Cleveland, Ohio...	4,020	Filling sta- tion.	do...	.25	1,005.00
8	Standard Oil Co., Cali- fornia.	Fort Mason.....	30,000	Steel drum..	Aero...	.285	8,550.00
8	Atlantic Refining Co...	Philadelphia, Pa...	3,000	.....do.....	Motor.	.21	630.00
8	Gulf Refining Co.....	Del Rio, Tex.....	16,000	.....do.....	Aero...	.33	5,280.00
8	Atlantic Refining Co...	Franklin, Pa.....	52,950	Tank car....	Motor.	.195	9,225.75
8	.....do.....	.....do.....	300	Steel drum..	Aero...	.255	76.50
8	Sinclair Refining Co....	Norman, Okla....	1,500	.....do.....	Motor.	.245	367.50
Mar. 31	Refining Oil Co.....	Dayton, Ohio.....	6,000	Tank wagon	Aero...	.36	2,160.00
30	Standard Oil Co., Ohio..	Cleveland, Ohio...	4,020	Filling sta- tion.	Motor.	.30	1,206.00
24	Atlantic Refining Co...	Martin Loading Plant, Delaware.	1,000	Tank wagon	do...	.30	300.00
22	Texas Co.....	Hampton, Va.....	1,800	Steel drum..	do...	.26	468.00
22	Standard Oil Co., Indi- ana.	Sugar Creek, Mo...	40,000	Tank car....	do...	.21	8,400.00
22	Standard Oil Co., New Jersey.	Charleston, S. C...	2,500	Steel barrel..	do...	.275	687.50
20	Gulf Refining Co.....	Frankford, Pa....	10,000	Tank wagon	do...	.27	2,700.00
20	Standard Oil Co., Ohio..	Toledo, Ohio.....	12,000	Tank car....	do...	.23	2,760.00
19	Standard Oil Co., In- diana.	Sugar Creek, Mo...	50,000	.....do.....	do...	.21	10,500.00
18	Standard Oil Co., New Jersey.	Baltimore, Md....	24,000	.....do.....	do...	.245	5,880.00
17	Texas Co.....	Washington D. C...	5,000	Tank wagon	do...	.255	1,275.00
17	.....do.....	.....do.....	75,000	.....do.....	do...	.25	18,750.00
17	.....do.....	.....do.....	25,000	.....do.....	do...	.255	6,375.00
17	.....do.....	.....do.....	2,500	.....do.....	do...	.255	637.50
17	.....do.....	.....do.....	1,000	.....do.....	do...	.255	255.00
17	Standard Oil Co., New Jersey.	.....do.....	15,000	.....do.....	do...	.255	3,825.00
17	.....do.....	Sewells Point...	60,000	Tank car....	do...	.27	16,200.00
17	Pure Oil Co.....	Watervliet, N. Y.	8,500	Tank wagon	do...	.26	2,210.00
17	Standard Oil Co., New Jersey.	Nitro, W. Va.....	7,500	.....do.....	do...	.255	1,912.50
16	Central Ohio Co.	Columbus, Ohio...	15,000	.....do.....	do...	.26	3,900.00
16	.....do.....	.....do.....	600	Steel drum..	Aero...	.36	216.00
16	.....do.....	.....do.....	3,000	Tank wagon	Motor.	.26	780.00
16	Standard Oil Co., Cali- fornia	Fort Worden, Wash	20,000	Steel drum..	do...	.255	5,100.00

Principal purchases of gasoline during calendar year 1920—Continued.

Date.	Contractor.	F. o. b. point.	Gallons.	Container.	Kind.	Unit price.	Total.
July 6	Gulf Refining Co.....	Fort Screven.....	4,000	Steel drum..	Motor.	\$0.325	\$1,300.00
6	do.....	Jackson Barracks..	12,500	do.....	do...	.31	3,875.00
6	The Texas Co.....	Fort Barrancas....	10,000	Tank wagon	do...	.29	2,900.00
6	Standard Oil Co., New Jersey.	Wilmington, Del..	8,900	Steel barrel..	do...	.295	2,625.00
7	do.....	Charleston, S. C...	125,000	Tank car....	do...	.265	33,125.00
7	Rio Grande Oil Co.....	El Paso, Tex.....	15,000	Steel drum..	do...	.29	4,350.00
7	Standard Oil Co., New Jersey.	Charleston, S. C...	20,000	Tank wagon	do...	.295	8,850.00
7	do.....	do.....	2,500	Steel drum..	do...	.305	762.50
7	do.....	Wilmington, Del..	72,000	Tank car....	do...	.255	18,360.00
7	Atlantic Refining Co....	Philadelphia, Pa..	3,000	Steel barrel..	Aero..	.415	1,245.00
7	The Texas Co.....	Camp Gordon, Ga..	80,000	Tank wagon	Motor.	.305	24,400.00
10	Standard Oil Co., New York.	Madison Barracks, N. Y.	5,000	do.....	do...	.31	1,550.00
10	do.....	Fort Tilden, N. Y.	3,000	do.....	do...	.30	900.00
10	Standard Oil Co., New Jersey.	Lakehurst Proving Grounds, N. J.	15,600	do.....	do...	.285	4,446.00
10	Standard Oil Co., New York.	New London, Conn.	7,500	Steel drum..	Motor.	.31	2,325.00
10	do.....	Fort H. G. Wright, N. Y.	40,000	do.....	do...	.31	12,400.00
10	Standard Oil Co., New Jersey.	Port Newark, N. J.	24,000	Tank wagon	do...	.285	6,840.00
10	Standard Oil Co., Indiana.	Sugar Creek, Kans.	80,000	Tank car....	do...	.24	19,200.00
10	Standard Oil Co., New York.	New York City....	100,000	Steel drum..	do...	.30	30,000.00
10	do.....	do.....	46,000	do.....	do...	.30	13,800.00
10	Standard Oil Co., New Jersey.	Kearney, N. J.....	45,000	Tank wagon	do...	.285	12,825.00
10	Standard Oil Co., New York.	Aero Plant, L. I...	2,000	Steel drum..	do...	.30	600.00
10	The Texas Co.....	Fort McPherson, Ga.	30,000	Tank wagon	do...	.305	6,100.00
10	do.....	Camp Jesup, Ga...	100,000	do.....	do...	.305	30,500.00
10	do.....	Pensacola, Fla....	15,000	Tank car....	Aero..	.3975	5,962.50
10	do.....	Montgomery, Ala..	11,000	Tank wagon	Motor.	.305	3,355.00
10	do.....	Pensacola, Fla....	70,000	Tank car....	Aero..	.3975	27,825.00
10	do.....	Tampa, Fla.....	40,000	do.....	Motor.	.295	11,800.00
10	Standard Oil Co., New York.	Long Island City..	70,000	do.....	do...	.28	19,600.00
10	Standard Oil Co., New Jersey.	Bayonne, N. J....	100,000	do.....	do...	.255	25,500.00
10	Standard Oil Co., New York.	Fox Hill N. Y.....	20,000	Steel drum..	do...	.30	6,000.00
13	Standard Oil Co., New Jersey.	Camp Lee, Va.....	50,000	Tank car....	do...	.26	13,000.00
13	do.....	do.....	40,000	Tank wagon	do...	.285	11,400.00
13	do.....	Baltimore, Md....	6,000	do.....	do...	.285	1,710.00
13	do.....	Washington, D. C.	135,000	do.....	do...	.285	38,475.00
13	Standard Oil Co., New York.	Fort Wadsworth, N. Y.	6,000	Steel drum..	do...	.30	1,800.00
13	Standard Oil Co., Indiana.	Selfridge Field, Mich.	5,400	do.....	do...	.29	1,566.00
13	do.....	do.....	8,000	Tank car....	Aero..	.31	2,480.00
13	Atlantic Refining Co....	Fort Du Pont, Del.	4,000	Tank wagon	Motor.	.34	1,360.00
13	do.....	Fort Mott, N. J....	6,000	do.....	do...	.34	2,040.00
13	Standard Oil Co., New Jersey.	Baltimore, Md....	24,000	Tank car....	do...	.255	6,120.00
13	Atlantic Refining Co....	Middletown, Pa., Army general supply depot.	10,000	Tank wagon.	do...	.34	3,400.00
13	do.....	do.....	5,000	Steel drum..	Aero..	.415	2,075.00
13	The Texas Co.....	Philadelphia, Pa..	150,000	Tank wagon	Motor.	.317	47,550.00
13	Atlantic Refining Co....	do.....	3,500	Steel drum..	do...	.34	1,190.00
13	do.....	Carlisle, Pa., Hospital 31.	7,500	Tank wagon	do...	.34	2,550.00
13	Standard Oil Co., New York.	Motor Transport Corps, New York, N. Y.	184,500	Steel drum..	do...	.30	55,350.00
13	do.....	Motor Transport Company No. 6, New York, N. Y.	12,000	do.....	do...	.30	3,600.00
13	do.....	West Point, N. Y.	38,000	Tank wagon	do...	.31	11,760.00
13	do.....	Long Island City..	50,000	Tank car....	Aero..	.34	17,000.00
13	do.....	do.....	70,000	do.....	Motor.	.28	19,600.00
13	Atlantic Refining Co....	New Cumberland, Pa.	12,000	Tank wagon	do...	.34	4,080.00

Principal purchases of gasoline during calendar year 1920—Continued.

Date.	Contractor.	F. o. b. point.	Gal- lons.	Container.	Kind.	Unit price.	Total.
Sept. 10	Elliott-Jones & Co.....	San Antonio, Tex.	118,000	Steel barrel.	Motor.	\$7.285	\$31,270.00
10	Producers Refining Co..	Gainesville.....	60,000	do.....	do...	.235	14,100.00
10	C. L. Maguire Petro- leum Co.	Wichita Falls.....	20,000	do.....	do...	.255	5,100.00
Dec. 10	Sinclair Refining Co....	Camp Funston, Kans.	40,000	Tank wagon	do...	.266	10,640.00
7	Liberty Bell Oil Co.....	Scott Field, Ill....	3,000	do.....	do...	.257	771.00
July 29	Pierce Oil Corporation..	Fort Reno.....	4,000	do.....	do...	.29	1,160.00
Sept. 10	Standard Oil Co., Indi- ana.	Fort Riley, Kans.	20,000	do.....	do...	.29	5,800.00
10	Liberty Bell Oil Co.....	Scott Field.....	5,000	do.....	do...	.257	1,285.00
11	Standard Oil Co., Indi- ana.	Camp Knox, Ky..	120,000	do.....	do...	.2768	33,216.00
17	Chemical Fuel Co.....	Louisville, Ky....	70,000	do.....	do...	.27	18,900.00
Oct. 29	Sinclair Refining Co....	Camp Funston, Kans.	70,000	do.....	do...	.276	19,320.00
Dec. 1	do.....	Fort Riley, Kans.	20,000	do.....	do...	.266	5,320.00
1	Pierce Oil Corporation..	Jefferson Barracks, Mo.	15,000	do.....	do...	.251	3,765.00
2	do.....	Fort Reno.....	2,500	Steel drum..	do...	.29	725.00
2	Livingston Refiners Corporation.	Fort Sill, Okla....	85,000	Tank car....	do...	.2208	18,768.00
2	do.....	do.....	14,000	do.....	Aero..	.2706	3,791.20
Sept. 2	National Oil Works.....	Depot quartermas- ter, New Or- leans.	5,000	do.....	Motor.	.26	1,300.00
Dec. 15	Humble Oil & Refining Co.	Fort Crockett.....	5,300	Tank wagon	do...	.25	1,325.00

IMPLEMENTS, SEEDS, ETC., FOR RAISING CROPS AT REMOUNT DEPOTS, ETC.

Mr. ANTHONY. The next item is for implements, seeds, labor, and other expenses for raising forage at remount depots and on military reservations in the Hawaiian and Philippine Islands, for which you are asking \$71,863.20, and for that purpose you were allotted \$53,500. Did you use all of that money?

Col. HANNAY. Yes, sir; it is insufficient. We raised \$148,518 worth of forage at those remount depots, so that there is quite a saving in that item, and they desire more seeds.

Mr. CRAMTON. How many horses do you suppose are maintained there?

Col. HANNAY. They are not all maintained there by any manner of means, but we can give you the figures in regard to the animals that we have in the remount stations. This, of course, is only a drop in the bucket, but it constitutes just that much of a saving.

Mr. ANTHONY. Do you think it pays to raise forage at these places?

Col. HANNAY. Yes. We only utilize a small amount of land in raising the forage, but I think it is worth while.

Mr. ANTHONY. Are you raising forage at Fort Keogh, Mont., at the present time?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Is that used as a remount depot now?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Is it considered an important post for that purpose?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. The reason I asked that question is that members of this subcommittee have been told by Members of Congress that efforts would be made, probably through legislative action, to have that reservation ceded for local uses and disposed of by the War Department. Would the Quartermaster's Department look on that with favor?

Gen. ROGERS. We would have to have another depot to take its place if we could not have Fort Keogh.

Mr. ANTHONY. So you think it is a necessary adjunct of your remount service?

Gen. ROGERS. Yes, sir. I have the number of horses at Fort Keogh if you would like to have the number. There are 1,870 cavalry horses and 511 draft horses.

Mr. ANTHONY. Are these young horses that were purchased in the neighborhood and being trained there?

Gen. ROGERS. They are generally purchased in the vicinity and kept there until they are partially trained before sending them to the troops. We have, all told, 1,731 animals.

Mr. ANTHONY. Does your experience go to show that it pays to buy young animals for the Army?

Gen. ROGERS. Yes, sir; and to get them partially trained before they are turned over to the troops.

Mr. ANTHONY. Have you had any difficulty in buying matured animals in the market?

Gen. ROGERS. We have difficulty in buying the right kind of animals. It is very hard to buy the proper kind of Cavalry horse. We can get mules and Artillery horses, but you can not get good Cavalry horses.

Mr. ANTHONY. You have an item later on about the purchase of horses?

Gen. ROGERS. Yes, sir.

Mr. ANTHONY. Then we will ask you about that later.

Gen. ROGERS. Very well.

OIL LAMPS AND LANTERNS.

Mr. ANTHONY. For oil lamps and lanterns you want \$194.669. Did you have any accumulated supply of them?

Col. HANNAY. No, sir. They were not used to any extent during the war. We spent in 1920, \$235,000.

Mr. Sisson. How does that appropriation stand now?

Gen. LORD. The amount obligated January 4 was \$46,902.47. I should like to say that a statement of the actual expenditures would not be of any assistance, because included possibly and probably in this item there might be a contract for \$100,000, which is an actual obligation, and under which not one penny has been expended. The expenditures would not help you on this item.

Mr. Sisson. Can not you give both?

Gen. LORD. We might give you the expenditures for three months.

Mr. Sisson. And the obligations?

Gen. LORD. The obligations and the possible actual expenditures are given here.

Mr. Sisson. I understand that fully, but what about the contracts?

Gen. LORD. They are included in these items. We have a contract for \$100,000 of shoes, and when that item comes to the chief of finance it is turned over to the disbursing officer.

Mr. Sisson. And that gives the expenditure?

Gen. LORD. Yes, sir. It is equivalent to the actual expenditure which comes in. The vouchers would be of little assistance to you.

Mr. CRAMTON. On this item for oil lamps and lanterns, what is the allotment?

Gen. LORD. The expenditures under this item amount to \$46,902.47.

Mr. CRAMTON. That \$46,902.47 would include everything ordered and paid for up to this time, and also orders which have been given and completed within the three months?

Gen. LORD. That is right.

Mr. CRAMTON. Then, as a basis of comparison, we really do not know where we are. I am trying to figure out what the expenditures have been or what the expenditures of the Government from that allotment for six months have been.

Gen. LORD. We give that up to January 4. That is approximately a little over six months. That is \$46,902.47.

Mr. CRAMTON. That is obligations?

Gen. LORD. As far as they are reflected in the allotment, but they are not all the obligations incurred.

Mr. CRAMTON. That may include obligations that were not completed during the six months and may run into the next six months?

Gen. LORD. Or in the succeeding fiscal year.

Mr. CRAMTON. Certainly. Because there has been \$46,000 obligated up to the last six months does not mean that it must be \$92,000 for the year.

Gen. LORD. What are the actual expenditures incurred?

Mr. CRAMTON. Let us get one at a time. The obligations do not indicate to us the expenditures for the six months, because they may include future deliveries.

Gen. ROGERS. May I say also that they may cancel obligations?

Gen. LORD. As soon as it becomes a concrete obligation the allotment comes to my office immediately.

FRIDAY, JANUARY 7, 1921.

ICE FOR PRESERVATION OF STORES, ISSUE TO OFFICERS, ETC.

Mr. ANTHONY. In reference to your item for ice, for which you are asking \$405,989 for the next fiscal year and for which you received an allotment of \$295,447 for the current year, how much has been expended so far?

Gen. LORD. There has been obligated up to January 4, 1921, \$1,135,429.33.

Col. HANNAY. Of that amount approximately \$800,000 covers the cost of ice for the first half of the year. The balance of the amount mentioned in Gen. Lord's statement is due to the allotments for the third quarter of the year, beginning January 1.

Mr. ANTHONY. If the cost of the ice has already exceeded \$800,000 for the first half of the year, where do you get your figures on which you base your estimate of \$405,989 for the next fiscal year?

Col. HANNAY. I believe the ice issues for the year are excessive. But we have not had the power to cut them down.

Mr. ANTHONY. But you are evidently going to cut them down during the next fiscal year.

Col. HANNAY. We held them down to \$500,000 in 1920 by limiting the allotments, but the per capita issue of ice has grown very greatly. Prior to the war the per capita ran from \$1 to \$1.25 per man. The cost increase in ice runs from about 30 cents at the beginning of the war to about 40 cents a hundred. I should say the cost this year is going to be about \$6.72 per capita.

Mr. ANTHONY. That is because in recent years you have been more liberal in supplying the men?

Col. HANNAY. It is because commanding officers have authority to increase the allowance.

Mr. ANTHONY. Who controls the issue of ice now?

Col. HANNAY. Commanding officers. There is a fixed allowance by regulations, which is tentative, and which is, I think, a pound per man.

Mr. ANTHONY. Per day?

Col. HANNAY. Per day; but commanding officers have the authority to increase those issues, and that custom has grown to this extent, so that this year we will expend approximately \$1,600,000 for the purpose.

Mr. ANTHONY. What classes of people are entitled to issues of ice?

Col. HANNAY. All organizations and offices.

Mr. ANTHONY. No individuals are entitled to an issue of ice?

Col. HANNAY. Individuals belonging to or attached to certain organizations and offices are entitled to it and officers are entitled to it.

Mr. ANTHONY. Only as a part of the organization which they belong to.

Col. HANNAY. Yes, sir; or detachments. The allowance is increased for small detachments.

Mr. ANTHONY. But no individual, as an individual, is entitled to it?

Col. HANNAY. No, sir; not as an individual.

Mr. ANTHONY. What is the result of your observation in connection with the increase of the amount of ice that has been used in the last few years? Is it due to an increase in the cost or an increase in the number of people receiving it?

Col. HANNAY. It is the per capita increase I am speaking of. I believe the issues have been excessive. I think the amount we are asking for here for an Army of 175,000 should be sufficient.

Mr. CRAMTON. How are you going to govern it?

Col. HANNAY. I believe when we put the matter up to higher authority they will take action to limit it.

Mr. ANTHONY. Following Mr. Cramton's question, what control have you over the issue of ice?

Col. HANNAY. None.

Mr. ANTHONY. If you decide you can furnish a sufficient amount of ice for the needs of the Army on an appropriation of \$405,989.

and you are allotted double that amount, have you any power to stop the expenditure?

Col. HANNAY. No, sir.

Mr. ANTHONY. What do you do in a case of that kind, where you feel that the money is being wasted?

Col. HANNAY. We would bring it to the attention of the Chief of Staff through The Adjutant General.

Mr. ANTHONY. In a formal communication?

Col. HANNAY. Yes, sir.

Mr. CRAMTON. If the Chief of Staff does not take any action on it you may have a deficiency of \$1,000,000 on this item of \$400,000?

Col. HANNAY. Yes, sir. We have figured this estimate based on the allowance given without consideration of the increase which a commanding officer can make.

Mr. CRAMTON. What would happen in a case like that if the deficiency subcommittee refused to take care of a deficiency like that on a \$400,000 appropriation?

Col. HANNAY. We have curtailed other activities which you have noted in many instances, where we have only spent a small amount of money, such as for oil lamps, and used the money for other more necessary purposes.

Mr. CRAMTON. That has not been enough to be conspicuous. Most of it seems to be going to the deficiency subcommittee.

Col. HANNAY. The actual deficiency will not be in this item, because we are taking the money from others.

Mr. CRAMTON. Suppose we put in this section a limitation on the amount to be used for ice; is it not likely that we could save about a million dollars?

Col. HANNAY. Personally, I believe that might result in a very difficult situation. Suppose some exigency occurred in the Army; it might result in a serious situation if you had a specific limit. I believe it should be effected without the limitation.

Mr. CRAMTON. I do not believe even the Army should get anything like a million dollars deficiency under these conditions without having it pretty well tied up in the law and letting the exigencies take care of themselves.

Col. HANNAY. I believe this will be rectified by higher authority.

Mr. ANTHONY. During the war the War Department has not been paying a great deal of attention to the economies on the business side of the work. During the war I went to see an official in the War Department and showed him where he could save \$250,000. He replied he was not thinking in sums as small as that.

Mr. CRAMTON. Have any steps been taken up to this time in connection with the matter?

Col. HANNAY. No, sir.

Mr. CRAMTON. Has your department taken any steps up to this time to correct that situation?

Col. HANNAY. No, sir; not officially. It has been reported unofficially to the General Staff.

Mr. ANTHONY. In the issue of all of these supplies your department, which is supposed to have charge of their issue, is governed entirely by the orders you get from higher authority.

Col. HANNAY. Yes, sir.

Mr. ANTHONY. If you receive orders to issue double what you deem absolutely necessary for the use of a certain number of troops you simply do it?

Col. HANNAY. Yes, sir.

STATIONERY.

Mr. ANTHONY. The next item is for stationery, including blank books and blank forms for all branches of the Military Establishment except Ordnance Department, Medical Department, and Engineer Corps. You are asking for \$1,163,119 for the next fiscal year for an Army of 175,000 men. You were allotted this year for that item \$502,996. That has been allotted so far this year for that purpose.

Gen. LORD. The amount is \$132,344.49.

Mr. ANTHONY. Can you give us an idea of how much will be expended during the current year for that purpose?

Col. HANNAY. All of this amount will be expended.

Mr. ANTHONY. All of the \$502,996?

Col. HANNAY. Yes, sir. In the year 1920 we expended \$1,890,000 for stationery. That gave us a little balance of stationery to start on for the first part of the present fiscal year, and that is why our expenditures for the first part of the year are not in proportion to what they will be for the latter part of the year.

Mr. ANTHONY. You are working on your surplus.

Col. HANNAY. Yes, sir; but that has run down, and we will have to use this amount of money to provide the stationery for the latter part of the year to carry us into the appropriation for next year.

Mr. CRAMTON. That figures nearly \$7 per man.

Col. HANNAY. We have in addition to that to supply offices created by the act of June 4, 1920, for the reorganization of the Army. We have the office of Chief of Infantry, the Chief of Cavalry, and the Chief of Field Artillery and the Chief of Staff to supply with stationery.

Mr. CRAMTON. That does not include the Ordnance Department, the Medical Department, and the Engineer Corps.

Col. HANNAY. No; nor the Signal Corps. But it does include corps and department headquarters. We supply the stationery at corps and department headquarters for all offices—the Ordnance Department, the Signal Corps, the Medical Corps—all of them at such headquarters. We do not supply stationery specifically for the school purposes, such as the Air Service School, though we supply the staff officers at corps and department headquarters. As we supply all troops and administrative offices.

Mr. CRAMTON. Your estimates are not based upon the present lowering of the prices of paper? You have not taken that into consideration?

Col. HANNAY. They are based on the average cost of the past year.

Mr. CRAMTON. Up until September?

Col. HANNAY. This estimate was based on the quantity for which there was an expenditure during 1920 and the approximate stock that would be on hand at the end of this year, plus the increase in cost since 1920 of approximately 100 per cent.

Mr. ANTHONY. What is the last purchase of paper that you made?

Col. HANNAY. I will put that in the record.

Typewriter paper purchased since July 1, 1920.

White typewriter paper, 160,761 pounds, at 24 cents-----	\$38, 582. 64
Onion skin typewriter paper, 7,926 pounds, at 34 cents-----	2, 634. 84

Total-----	41, 277. 48
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The dealers in the city of Washington advise that typewriter paper has decreased approximately 15 per cent during the past three months.

Mr. ANTHONY. And the price?

Col. HANNAY. Yes.

Mr. CRAMTON. I did not quite understand your statement. Did you say that from 1920 there has been an increase in the cost of 100 per cent?

Col. HANNAY. Stationery has increased 100 per cent.

Mr. CRAMTON. Beginning about early in the fall there was a very pronounced decrease, was there not?

Mr. ANTHONY. There has been a decline in the spot price of paper of about 100 per cent in the last three months.

Col. HANNAY. We will put that in the record.

TOILET PAPER, TOWELS, AND DRINKING CUPS.

Mr. ANTHONY. Your next item is for toilet paper, towels, and paper drinking cups issued to offices. You are asking for an appropriation of \$90,178. You had for 1921 an allotment of \$79,142 out of the current year's appropriation. How much money has actually been expended so far for this item?

Gen. LORD. The amount is \$3,872.50.

Mr. ANTHONY. How do you account for such a small allotment? Is it because you have been using your surplus?

Col. HANNAY. We have been using the stock on hand.

Mr. ANTHONY. How much surplus have you on hand of the articles provided for in this item?

Col. HANNAY. It is not figured in here, because we did not consider that there would be a surplus on hand sufficient to affect this estimate. We expended \$71,000 in 1920 to provided for toilet paper, towels, and drinking cups under this item, and that could not have created a sufficient excess.

Mr. ANTHONY. We are going to be asked in connection with every one of these items how much surplus the Army has on hand from the war stock, and I wonder if it will be possible to put in the record a statement after each item showing the amount, if any, of the surplus?

Col. HANNAY. Yes, sir; we have not figured that way in our estimates.

Mr. ANTHONY. I do not care whether you call it reserve or what you call it, but we would like to have a statement of how much the Quartermaster Department actually has on hand of the principal items.

Col. HANNAY. Just of the principal items?

Mr. ANTHONY. Yes.

Gen. ROGERS. You would like a statement of the surplus as approximating the date of July 1, 1921? We would figure the surplus at the beginning of this fiscal year.

Mr. ANTHONY. What are you doing with it? We know you have a big surplus in a great many things. Are you carrying that as reserve or using it for current needs?

Gen. ROGERS. We are not buying anything of which we have a surplus.

Mr. ANTHONY. In the case of a good many of these articles of which you have a surplus, have you put them aside as a reserve with the idea of not going into them?

Gen. ROGERS. Not at all; we are using everything of this kind.

Mr. ANTHONY. You are using them out of your stock?

Gen. ROGERS. Yes; we are not putting aside any reserve except the actual equipment set aside for the divisions.

Mr. ANTHONY. In connection with each of these items—that is, the principal items—it would be very helpful to the committee and to the House if you would put into the record a statement showing the amount of surplus you have on hand.

Gen. ROGERS. I want to know whether you want a statement showing what we consider we will have which will be available for use for any of these items?

Mr. ANTHONY. We would like a statement of the amount on hand, whether it is surplus or reserve.

Gen. ROGERS. As of July 1, when this will take effect?

Mr. ANTHONY. Yes.

Col. HANNAY. I understand you to say you simply want that on the principal items?

Principal items of regular supplies which it is estimated will be on hand July 1, 1921.

Commissary chests, complete.....	0.00
Cans, water.....	1.50
Tables, mess.....	2.50
Stools, mess.....	10.00
Field bake ovens, complete.....	1.50
Ranges, No. 5.....	2.00
Ranges, field, Nos. 1 and 2, short 75 per cent of equipment.....	40.00
Stoves, heating.....	10.00
Shoes, horse.....	3,000.00
Shoes, mule.....	1,500.00
Nails, horseshoe.....pounds.....	500.00
Rope, assorted sizes.....feet.....	35,000.00
Desks, office.....	2.00
Desks, typewriter.....	1.50
Tables, office.....	3.00
Tables, typewriter.....	1.00
Chairs, office.....	5.00
Chairs, typewriter.....	2.00
Lamps, hand.....	7.00
Lanterns.....	100.00
Tools, carpenters' sets.....	50.00
Tools, saddlers' sets.....	50.00
Rolling kitchens (motor drawn, not convertible to animal drawn).....	1.00
Candles.....pounds.....	1,000.00
Soap, hand.....1-ounce cakes.....	25,000.00

COMMERCIAL NEWSPAPERS, RELIEF MAPS, ETC.

Mr. ANTHONY. Yes. We did not want to go into the small things. I suppose the amount of \$500 which you are asking for commercial newspapers, relief maps, and market reports is to aid the buying agencies? That is the same amount that was allotted for that item out of last year's appropriation.

Col. HANNAY. Yes, sir; that is specifically for the Quartermaster Corps, and includes such periodicals as the Iron Age, Chicago Daily Produce, the California Fruit News, and things of that kind.

Mr. CRAMTON. It seems to me, with all of that data at your hands, and with the experience which you have had, you really ought to be prepared to give this committee the benefit of that information as to the trend of prices at the present time, because the House knows very well that there is a downward tendency, and they are going to want to know about those things, and instead of perfunctorily making up an estimate upon the same lines as last year we ought to have your defense of the items based upon present conditions, and your best judgment as to the year to be affected.

Mr. ANTHONY. You will probably recall, Mr. Cramton, in the statement of the Quartermaster General, it appears he has made an arbitrary cut, taking into consideration what he estimates the decline will be.

Mr. CRAMTON. But it is not followed in these other items.

Col. HANNAY. Let me explain, Mr. Cramton, that the moment these hearings are over we start on our estimates for 1923. There is an infinite amount of data entailed in connection with these estimates, and the estimate is approximately as close as we can arrive at in a statement as to what the cost will be, based on past experience. The big items we do leave until the last minute so that the estimates on those items may be cut down to meet market conditions. But it would be an absolute physical impossibility for us to check up every one of the articles of the 180,000, more or less, which pertain to regular supplies and treat it in that way. In consequence, only the major items are corrected immediately prior to the hearings, and arbitrary percentage cuts made on the whole estimate to cover the small items.

Mr. CRAMTON. I would think in an item of a million dollars, even if you made that the minimum, you might make your estimate reflect, in some degree, your judgment based on present prices.

Col. HANNAY. We would not have the personnel to do it. The limited personnel we have is busy the entire year on this other work.

Mr. CRAMTON. When you come before this subcommittee with an estimate of a million dollars for stationery, you base that upon quantity estimates, and you know, we will say, that the prices of paper have been reduced within the last 30 or 60 days as much as 40 or 50 per cent. I do not make that as a direct statement, but assuming that there has been, why can you not when you come before this committee say that in view of that decrease in the price of that commodity you think that item can very well be reduced accordingly. Your statement as to stationery was that the estimate is based entirely upon last year's estimate and has no reference to changes in prices.

Col. HANNAY. We have cut that down. We expended in 1920 \$1,896,000. We are asking for \$1,163,119.

Mr. CRAMTON. How does the size of the Army in the fiscal year 1920 compare with an Army of 175,000 men?

Col. HANNAY. The Army was larger then, but we had reserve supplies in large quantities. Before we submitted this estimate we ascertained whether there were supplies on hand.

Mr. CRAMTON. The statement you made in connection with this particular item that no consideration had been given to these changed prices struck me rather forcibly.

Col. HANNAY. I regret that you must have misunderstood me.

Mr. CRAMTON. Perhaps I did.

Col. HANNAY. I did not mean to put it into the record in that way because we have given consideration to all these major items as reflected in market conditions.

We have figured we will be required to procure the same amount of stationery as we did the year before this. This year we are not requiring so much because we are working on the stocks that were left over, and we figured that for the same amount of stationery we could make a reduction of approximately \$800,000 in the items because of the decline in cost.

Mr. CRAMTON. I did not understand your former statement that way at all.

Mr. ANTHONY. You are making no estimate this year for gasoline and lubricants for aeroplanes and airships, because the Air Service intends to purchase everything of that kind.

Col. HANNAY. That is it exactly. The same thing is true in connection with oils and paints for painting tanks.

Mr. ANTHONY. That is also to be omitted from this appropriation?

Col. HANNAY. We have taken that out, and also the item for miscellaneous sales stores, other than subsistence, and for laundries, construction of buildings, including installation of machinery, for post bakeries, construction of buildings, and for ice plants, construction of buildings, and for the construction of reservation fences. We have eliminated all of those items.

CARPENTERS' AND SADDLERS' TOOLS.

Mr. ANTHONY. What is included in the items for tools, carpenter's and saddlers' sets, for issue to organizations, for which you are asking \$200,000?

Col. HANNAY. That includes all tools which go with the organization sets for carpenters and saddlers. If we issue a set of carpenter's tools, that is covered in this item. We would ordinarily issue one set per troop or one set per company.

Mr. ANTHONY. Of course, the Army is equipped with these now and this is to supply wastage?

Col. HANNAY. Repairs and replacements.

Mr. ANTHONY. What have you used for that purpose this year?

Gen. LORD. The amount is \$82,962.68.

Mr. ANTHONY. That is up to January 4, 1921?

Gen. LORD. That is up to January 4; yes, sir.

CLEANING AND PRESERVING MATERIALS.

Mr. ANTHONY. Your next item is for cleaning and preserving materials (transferred from Ordnance to Purchase and Storage Service by P. S. & T. Circular No. 29, as amended by No. 48, Series 1919). You are asking for \$475,000 for that item. What does that apply to?

Col. HANNAY. That applies to paints, paintbrushes, lubricants, soap, emery paper, sandpaper, etc.

Mr. ANTHONY. What do you clean and preserve?

Col. HANNAY. All artillery and rifles and things of that kind.

Mr. ANTHONY. Does the Quartermaster Corps now have charge of the care of—

Col. HANNAY (interposing). Supplies for the care and preservation.

Mr. ANTHONY. Of reserve ordnance material?

Col. HANNAY. When it is not in arsenals.

Mr. ANTHONY. But all of those materials that are in storehouses outside of arsenals—

Col. HANNAY (interposing). With troops.

Mr. ANTHONY. All that is under your care?

Col. HANNAY. Yes, sir; in so far as furnishing supplies.

Mr. ANTHONY. This transfer was made by whose order?

Col. HANNAY. The Secretary of War.

Mr. ANTHONY. When?

Col. HANNAY. In 1919.

Mr. CRAMTON. Could you give an estimate as to the valuation of the property cared for under this item?

Col. HANNAY. We will put an approximation of that in the record. That is about the best we can do.

Mr. Sisson. Who actually does the estimating for this stuff? What process do you use to get at this estimate?

Col. HANNAY. The quantity is based on the actual issues to troops—the demands of troops for the purpose during the past year.

Mr. ANTHONY. This item is for the care of ordnance material solely?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Who makes the estimate on that?

Col. HANNAY. The Quartermaster Corps does that.

Mr. ANTHONY. Because you did the work during the previous year?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. What did it cost you to do that work in 1920?

Col. HANNAY. It cost \$465,513, but we had supplies on hand to supplement such funds.

Mr. ANTHONY. How many of these ordnance storehouses are there under your care now?

Col. HANNAY. They are not ordnance storehouses; they are what are called quartermaster reserve and supply depots.

Mr. ANTHONY. You have just taken the material and transferred it to the quartermaster storehouses?

Col. HANNAY. Yes, sir. The material is also in post and division camps, in the storehouses there, and in the reserve depots.

Mr. ANTHONY. What does this material consist of, mostly?

Col. HANNAY. It consists mostly of rifles.

Mr. ANTHONY. Service rifles?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Does it include any artillery?

Col. HANNAY. Yes, sir. It includes field artillery and coast artillery.

Mr. ANTHONY. This is ordnance material in actual use by the Army?

Col. HANNAY. Yes, sir; in actual use.

Mr. ANTHONY. Who cares for the surplus ordnance material, the great amount of reserve ordnance material?

Col. HANNAY. That is placed in reserve depots and is cared for by us.

Mr. ANTHONY. Who cares for the 10,000 pieces of field artillery you have?

Col. HANNAY. Those are cared for out of this item.

Mr. ANTHONY. Where is that artillery stored?

Col. HANNAY. I will put a statement of that in the record.

Mr. ANTHONY. I would like to know where the principal quartermaster storehouses are, what the activities are, and what the things are which you take care of under this item.

Col. HANNAY. Yes, sir. The Coast Artillery is a large factor in this, in connection with the preservation of guns in place.

Mr. ANTHONY. Do you take care of the preservation of the guns of the Coast Artillery?

Col. HANNAY. We furnish the preservation supplies.

Mr. ANTHONY. What are those supplies?

Col. HANNAY. It includes paints, greases, etc.

(The statement referred to is as follows:)

The approximate value of the principal items of ordnance material required for cleaning and preserving materials (Artillery, tanks, and small arms) is \$200,000,000. Of this there is in service material to the value of approximately \$150,000,000.

The principal places at which ordnance is stored are: Augusta Arsenal, Benicia Arsenal, Raritan Arsenal, San Antonio Arsenal, Erie Proving Ground, Savanna Proving Ground, Middletown general ordnance depot, Pig Point general ordnance depot, Rock Island Arsenal, Springfield Armory, Frankford Arsenal, Columbus depot, Schenectady depot, and New Cumberland depot. (Statements in this indorsement do not include ammunition or the depots at which it is stored.)

The cost of the rifle is \$33.22.

With reference to paragraphs 2 and 3 of your letter, attention is invited to the understanding of this office which is that the Quartermaster Department will not provide funds to cover the purchase of cleaning and preserving materials used by the Ordnance Department, but that the supplies purchased from funds appropriated to the Quartermaster Department will be used for issue to line branches of the service using ordnance material. It is understood that the Ordnance Department will bear the expense of cleaning and preserving materials used at its own establishments.

Mr. Sisson. I understood the money expended out of this was for preservation of rifles?

Col. HANNAY. Yes.

Mr. Sisson. What is the rifle worth now?

Col. HANNAY. The cost?

Mr. Sisson. Yes.

Col. HANNAY. I will put that in the record.

Mr. Sisson. \$25 or \$50 or \$75?

Col. HANNAY. It is in the neighborhood of \$33.22.

Mr. Sisson. If that is true, there is an overhead of 71½ cents, which is quite a large overhead charge to take care of rifles, it seems to me.

Col. HANNAY. We have a reserve, of course. There is a large reserve of artillery besides. There is an enormous reserve of rifles. They have to be constantly repacked in heavy grease. It takes an enormous quantity of grease to keep them in storage.

Mr. ANTHONY. You are not asking for anything for post bakeries, for the construction of buildings?

Col. HANNAY. No, sir.

Mr. ANTHONY. But under another item you are asking for something for that work?

Col. HANNAY. Only repairs. There is nothing for new construction.

Mr. ANTHONY. Are you asking for anything for new construction of ice plants anywhere else in the bill?

Col. HANNAY. No, sir.

INSTALLATION OF HEATING APPARATUS.

Mr. ANTHONY. This item reads "Heating apparatus (other than stoves), installation of, in offices, hospitals, barracks quarters, and recruiting stations," for which you are asking \$199,000 for the purchase of new stoves.

Lieut. BRILL. No, sir; for apparatus other than stoves.

Mr. ANTHONY. New heating apparatus?

Lieut. BRILL. For the purchase and installation of new furnaces, other than stoves, and boilers in heating plants. That item as well as the following item for the installation of electric wiring—

Mr. ANTHONY (interposing). Where do you propose to put this heating apparatus?

Lieut. BRILL. In miscellaneous places all over the country. The estimate is based upon what past experience has shown is the cost each year for that sort of thing. It covers installations, not in new buildings, but installations in buildings at present constructed and not yet equipped. One item to come out of that for the next year is for the installation of a set similar to the Delco generating set at Fort Seward, in Alaska. They have nothing but oil for lighting there now, and for at least 10 years there have been complaints as to the fact that the oil lamps are always smoking, and often so badly that it is necessary for the people up there to open their doors and they almost freeze to death. Especially during the long winter season when they have daylight a few hours each day they need electric light. This has been taken up a number of times.

Mr. ANTHONY. How large a plant will that be?

Lieut. BRILL. I think it will be a 25 kilowatt-hour set.

Mr. ANTHONY. That would be a very small one.

Lieut. BRILL. It is a small set. We have the set in surplus stock, and we are asking for \$16,500 for its installation.

Mr. ANTHONY. You had such a set carried over from the war?

Lieut. BRILL. Yes, sir.

Mr. ANTHONY. Why does it cost \$16,500 to install a little set like that?

Lieut. BRILL. Because they would have to transport electricians to that place to do the work. They do not have any competent electricians there at the post.

Mr. ANTHONY. You will have to wire the electricity in there?

Lieut. BRILL. We will have to install the set and connect up the wiring, and all that sort of thing.

Mr. CRAMTON. You say you will have to take electricians in there?

Lieut. BRILL. We will have to get one somewhere else in Alaska, because there is nobody at the post who is competent to do it.

Mr. ANTHONY. Is not that the same set that the average farmer installs on his farm?

Lieut. BRILL. No, sir; it is larger.

Mr. ANTHONY. It is on the same principle; you have a gasoline engine and a storage battery.

Lieut. BRILL. Yes, sir. There have been a great many complaints of the present conditions, and as the buildings get older the fire hazard increases. They are all frame buildings. So there is not only the matter of inconvenience to be considered, but there is also the fire hazard.

Mr. ANTHONY. After a set of that kind is in operation for about a year it will be worn out and they will go back to oil lamps; that has been my experience.

Lieut. BRILL. Another item is for an additional boiler in the power plant at Alcatraz Island, Calif. The post has enlarged very much in the last few years and they still have the same power plant. It has been reported as inadequate, and with the present equipment they do not have time to close down for repairs. They have to run constantly.

Mr. ANTHONY. That is the heating plant there?

Lieut. BRILL. That is the heating plant there, that furnishes heat for the entire post as well as power for the laundry, and that laundry does laundry work for all the adjacent posts.

Mr. CRAMTON. Where will you get an electrician to take in there?

Lieut. BRILL. That I can not say exactly. He will be taken from the nearest available place in Alaska.

Mr. ANTHONY. Will he be a civilian?

Lieut. BRILL. Yes, sir.

Mr. ANTHONY. Have you any enlisted men in the Construction Corps who can do that work?

Lieut. BRILL. Not in Alaska.

Mr. ANTHONY. Have you not got men in the Construction Corps in this country who can do that work?

Lieut. BRILL. That I could not say definitely.

Mr. CRAMTON. It will not take a very large part of the \$15,000 for that, will it?

Lieut. BRILL. No, sir; but they will have to have a building to house the set. This was an estimate by the local authorities who are in personal touch with the situation. This is an estimate of what they think it will cost to install this set.

Mr. ANTHONY. While that is a comparatively small project, that would be one which could go over another year, if the necessities demanded it; is that not so?

Lieut. BRILL. Almost anything could go over. In connection with the chairman's request that we insert a statement showing how much has been expended this year, I should like to insert another statement showing how much has been spent under these items for 1920, together with the value of the surplus material used. I do not believe the statement of the expenses this year will give the committee a proper basis on which to figure the amount required.

Mr. ANTHONY. Because you have been using a great deal of surplus material?

Lieut. BRILL. Because we have been using a great deal of surplus material, not only that, but the appropriations were so small this year that we have not been able to provide money for all the worthy projects which have been requested. We have only been able to provide money in cases of supremest importance, because of our endeavor to keep within the amount appropriated. We are governed by that rather than by the worthiness of the projects.

FOR ELECTRIC WIRING AND FIXTURES IN STRUCTURES OTHER THAN
HOSPITALS.

Mr. ANTHONY. The next item is for electric wiring and fixtures in structures other than hospitals, for which you are asking and appropriation of \$147,500. The amount of the allotment for this item for 1921 was \$72,456. How much was expended for that purpose in 1920?

Lieut. BRILL. I will insert that.

NOTE.—Six hundred and seventy-five dollars has been expended.

Mr. ANTHONY. How much has been allotted so far this year?

Gen. LORD. Six hundred and seventy-five dollars.

Mr. ANTHONY. Up to January 4, 1921?

Gen. LORD. Up to January 4, 1921.

Mr. ANTHONY. What do you base this estimate on?

Lieut. BRILL. I spoke of that in connection with the installation of the heating apparatus when I referred to the lighting plant at Fort Seward. The installation of lighting comes under this item. I spoke of the two items together. They both cover installation.

Mr. ANTHONY. What item covers the expense of repairs to wiring?

Lieut. BRILL. We took that up yesterday. It was the item for electric wiring, maintenance and repair, and the amount asked for was \$661,000.

Mr. ANTHONY. This item is only for wiring and fixtures in connection with new projects?

Lieut. BRILL. For new installation; yes, sir. In several cases the buildings in which we desire to put that lighting will be defended under another item. The details of that will be taken up under another appropriation.

Mr. CRAMTON. Would it not be possible conveniently to bring together the different items that make up the heating and lighting cost for the Army other than new construction, and give us that on a per capita basis, the per capita expense for each man per year?

Lieut. BRILL. I can give it for the fiscal year 1920.

Mr. CRAMTON. And of the estimates you are asking for, too?

Lieut. BRILL. Yes, sir; we can do that.

Mr. CRAMTON. I would like to have you include the cost of producing the heat or light, either by the use of fuel or by purchase, and the repairs to wiring, and all that sort of thing.

Lieut. BRILL. I can give you the total costs by posts right now, and I can insert it per capita.

NOTE.—The total cost of electric current purchased during the fiscal year 1920, including the cost of maintenance and repair of the distribution systems (excluding Panama, Philippine Islands, and Hawaii, for which no data is available), was \$3,055,495.85. This includes all posts and stations and all appropriations, for e. g., the cost of electric current and of maintaining and repairing the systems at Air Service stations is included in the above figure. The per capita cost of this current purchased was \$8.73 for the entire fiscal year 1920. The per capita cost of producing current in a Government-operated plant was \$19.14 for the fiscal year 1920.

The estimated cost of electric current for the fiscal year 1922 is \$3,091,678.18. This figure includes the estimates for Panama, Hawaii, and Philippine Islands. On the basis of 150,000 enlisted men plus officers and civilians (families of officers, enlisted men, and civilian employees) this represents a per capita cost of \$10.62 per year. On the basis of an Army of 175,000 plus officers and civilians it represents a per capita cost of \$9.78 per year. The cost of electric current does not vary with the enlisted strength because practically the same number of buildings must be kept lighted and the same number of street lights maintained regardless of the probable variation in enlisted strength.

There is no data showing the cost of fuel used for generating heat during the fiscal year 1920. The total cost of heating all posts and stations, exclusive of fuel, was, for the fiscal year 1920, \$2,383,426.14, a per capita cost of \$6.284. The estimated cost of heating all posts and stations for the fiscal year 1922 is, exclusive of coal, \$2,382,886.

REMOVAL OF GARBAGE.

(See p. 619.)

Mr. ANTHONY. The next item is for removal of garbage, for which you are asking \$92,742.

Col. HANNAY. We did not have this item under regular supplies during the past year. We supposed it would be taken care of by the then separate construction corps, under waters and sewers.

Mr. ANTHONY. You will have to do that work yourself this year?

Col. HANNAY. Yes, sir. There is a great saving made in this project to the Government.

Mr. Sisson. Something was said about some building you contemplated to erect this year, for which you expected to furnish the electric wiring, fixtures, etc. Do you know what buildings are to be erected?

Lieut. BRILL. They will be given in detail when we take up the appropriation for barracks and quarters.

Mr. Sisson. This item must be considered in connection with that item?

Lieut. BRILL. Yes, sir; and not only this, but it also takes in waters and sewers, and we have to consider that. When we put up a building we pay for the carpenters out of the appropriation for barracks and quarters, we pay for the heat out of the appropriation for regular supplies, and we pay for the plumbing out of the appropriation for waters and sewers. So you have to consider all those appropriations at one time. There are four appropriations we have to consider every time we put up a building.

PROPOSED CHANGE IN FORM OF BILL.

Mr. ANTHONY. I understand you have worked out a proposed change in the form of this bill.

Mr. DENT. There have been propositions for a number of years to change the form of this bill.

Col. HANNAY. Yes, sir; the Quartermaster General has worked out a proposed change in the bill, and that can be presented to you. For example, under the construction of new projects, everything would be included in the cost of the project.

Mr. ANTHONY. And instead of asking for so many million dollars for new construction, the projects themselves would be presented?

Col. HANNAY. The projects themselves would be presented, and everything in connection with the completion of a project, such as roads and walks, waters, and sewers, electric wiring, and so forth, would be presented under one head instead of being scattered through four or five appropriations. All maintenance would be thrown under one head. Therefore an entire new project would be presented under one head instead of several different heads.

Mr. Sisson. In other words, it would be logically arranged, so that the money expended for one kind of business activity would all be covered under one head?

Col. HANNAY. Yes, sir.

Mr. Sisson. And your explanation would simply be as to how you expected to distribute that throughout the Army?

Col. HANNAY. Yes, sir.

Mr. Sisson. And Congress could get a concrete idea of how much money was being expended for each proposition?

Col. HANNAY. Yes, sir; for each specific activity, and also there would be presented to the committee in future hearings just what we have done with the money.

Mr. ANTHONY. I wish you would put in the record a short statement as to what it is proposed to accomplish by the proposed change in the form of the appropriation bill.

Col. HANNAY. Yes, sir.

STATEMENT SHOWING PROPOSED CHANGES IN APPROPRIATION ACTS PERTAINING TO THE QUARTERMASTER CORPS.

1. In connection with the proposed changes in appropriation acts pertaining to the Quartermaster Corps, attention is invited to the following explanation:

(a) The proposed appropriations, Supplies and services, Quartermaster Corps; Animals for the Army; Construction for the Army, are intended to replace the following present appropriations: Subsistence of the Army; Regular supplies; Incidental expenses; Transportation of the Army and its supplies; Water and sewers at military posts; Clothing and camp and garrison equipage; Horses for Cavalry, Artillery, Engineers, etc.; Barracks and quarters; Barracks and quarters, Philippine Islands; Roads, walks, wharves, and drainage; Construction and repair of hospitals; Quarters for hospital stewards; Shooting galleries and ranges; Rent of buildings, Quartermaster Corps; Inland and port storage and shipping facilities; Barracks and quarters, seacoast defenses; Seacoast defenses, aviation stations; Barracks and quarters, Seacoast Artillery, Philippine Islands and Hawaiian Islands; Aviation seacoast defenses, Hawaiian Islands; Army quarters, storehouses, etc., Panama Canal; Aviation seacoast

defenses, Panama Canal; Fort Monroe, Va., wharves, roads, and sewers; Military posts, Hawaiian Islands.

2. The arrangement of the wording along the lines recommended would classify the various supplies and services into groups so that all supplies of the same class would be included in one item, divided into subitems where necessary. Example: All fuel, gasoline, and lubricants would be estimated for under item 23, with a subitem for each (23a for coal; 23b for gasoline; 23c for lubricants, etc.). All civilian employees for the entire Quartermaster Corps would be included in item 45, with a subitem for each class, such as clerks, laborers, watchmen, etc. By this method Congress would know at a glance the entire amount asked for for coal, for gasoline, and for lubricants. Instead of having the items for civilian employees scattered throughout several different appropriations as at present, they would be brought together under one item, divided into subitems; therefore, Congress could determine the total amount needed for the hire of each class of civilian employees. Likewise, the maintenance and repair of all buildings would be included in item 60, instead of in eight or more appropriations as at present.

3. All funds for the procurement of animals, whether riding, draft, or pack, would be estimated for under the heading of "Animals for the Army."

4. Funds for the construction of new projects would be estimated for under "Construction for the Army." The estimates would show each project separately, and would show the total cost, including heating, lighting, and sewer systems, and roads, walks, and drainage; hence, Congress would have full information as to the total cost of each proposed project, and would be in a position to determine the exact amount that should be appropriated to cover the entire cost.

5. The heading "Construction for the Army" is intended to cover new construction only, the cost of maintenance and repair would be included under item 60, "Supplies and services, Quartermaster Corps."

6. Under this system the appropriation would be flexible, yet the funds under each item would be based upon the needs for that particular purpose. The responsibility would be placed on the chief of the bureau to expend funds strictly within the intent of Congress, and to produce evidence at the hearings on succeeding estimates to show the distribution made by him, and to show the specific necessity for any procurement made under one item in excess of the amount apportioned. Any less elastic system is bound to result in very material increased cost of operation with consequent lack of efficiency. Item 20, under legislative provisions, would prevent the chief of a bureau from being required to depart from the intent of Congress in making apportionments without assuming the responsibility therefor, and in consequence would practically reduce such action to emergencies only.

Proposed changes in appropriation acts.

[Changes in wording in *italics*; additional wording in *small capitals*.]

SUPPLIES AND SERVICES, QUARTERMASTER CORPS.

Item No	Purposes of the appropriation	Appropriation from what now procured.
	<p>FOR MAINTENANCE AND REPAIR, THE ENGAGEMENT OF SERVICES, AND THE PURCHASE, PROCUREMENT, AND MANUFACTURE OF SUPPLIES, QUARTERMASTER CORPS, INCLUDING ALL SUPPLIES OF STANDARD MANUFACTURE AND ALL SUPPLIES COMMON TO TWO OR MORE BRANCHES, FOR ISSUE TO AND USE OF THE ARMY OF THE UNITED STATES, INCLUDING THE REGULAR ARMY, THE NATIONAL GUARD WHILE IN THE SERVICE OF THE UNITED STATES, AND THE ORGANIZED RESERVES; AND INCLUDING RETIRED ENLISTED MEN AND MEMBERS OF THE OFFICERS RESERVE CORPS AND OF THE ENLISTED RESERVE CORPS WHILE ON ACTIVE DUTY: PROVIDED, THAT WHENEVER FUNDS FOR THE PURCHASE AND PROCUREMENT OF SUPPLIES OF STANDARD MANUFACTURE AND OF SUPPLIES COMMON TO TWO OR MORE BRANCHES HAVE BEEN INCLUDED IN APPROPRIATIONS OTHER THAN SUPPLIES AND SERVICES, QUARTERMASTER CORPS, THE PURCHASE AND PROCUREMENT OF SUCH SUPPLIES SHALL BE MADE UNDER THE PROVISIONS OF SECTION 4 OF THE ACT APPROVED JUNE 1, 1920 FROM FUNDS INCLUDED IN THOSE APPROPRIATIONS.</p>	

Proposed changes in appropriation acts—Continued.

SUPPLIES AND SERVICES, QUARTERMASTER CORPS—Continued.

Item No.	Purposes of the appropriation.	Appropriation from which now procured.
1	For subsistence supplies for issue as rations to troops, warrant officers of the Mine Planter Service, civil employees when entitled thereto, hospital matrons, nurses, applicants for enlistment while held under observation, general prisoners of war, <i>disciplinary barracks' guards, remount detachments at remount depots, school detachments at service schools, detached enlisted men</i> , Indians held by the Army as prisoners but for whose subsistence appropriation is not otherwise made, Indians employed with the Army as guides and scouts; and general prisoners at posts <i>and stations</i> .	Subsistence.
2	Subsistence of the masters, officers, crews, and employees of the vessels of the Army Transport Service.	Do.
3	Hot coffee for troops traveling when supplied with cooked or travel rations.	Do.
4	Meals for recruiting parties and applicants for enlistment while held under observation.	Do.
5	Supplying meals or commutation of rations to enlisted men of the Regular Army, THE ORGANIZED RESERVES, THE ENLISTED RESERVE CORPS, and the National Guard who may be competitors in the national rifle match.	Do.
	Commutation of rations to the cadets of the United States Military Academy in lieu of the regular established ration at the rate of \$1.08 per ration.	Do.
7	Regulation allowances of commutation in lieu of rations to enlisted men on furlough; male and female nurses on leave of absence; enlisted men, warrant officers of the Mine Planter Service, and male and female nurses when stationed at places where rations in kind can not be economically issued, and when traveling on detached duty where it is impracticable to carry rations of any kind; enlisted men selected to contest for places or prizes in department and Army rifle competitions while traveling to and from places of contest; applicants for enlistment, and general prisoners while traveling under orders.	Do.
8	Regulation allowances of commutation in lieu of rations for members of the Army Nurse Corps while on duty in hospitals, and for enlisted men, <i>warrant officers of the Mine Planter Service</i> , applicants for enlistment while held under observation, civilian employees who are entitled to subsistence at public expense, and general prisoners sick <i>in hospital</i> , to be paid to the surgeon in charge.	Do.
9	Forage, salt, vinegar, and bedding for draft, riding, and pack animals and for horses of Indian scouts; for remounts, and for the authorized number of officers' horses, and for straw for soldiers' bedding.	Regular supplies.
10	Seeds and implements required for the raising of forage at remount depots and on military reservations in the Hawaiian and Philippine Islands, and for labor and expenses incident thereto, including, when specifically authorized by the Secretary of War, the cost of irrigation.	Do.
11	Ice for issue <i>where necessary</i> to organizations of enlisted men, and to offices AND SHOPS at such places as the Secretary of War may determine, and for preservation of stores.	Do.
12	Candles, matches, soap, toilet paper, towels, AND PAPER DRINKING CUPS.	Do.
13	Stoves, <i>heating</i>	Do.
14	Ranges, <i>cooking stoves, rolling kitchens</i> , bake ovens and equipment pertaining thereto, coffee roasters, and appliances for cooking and serving food, including tableware, mess equipment, mess furniture, and china and glassware.	Regular supplies; Construction and repair of hospitals.
15	Stationery, <i>office supplies and equipment</i> , OFFICE FURNITURE, blank books, typewriters, <i>mimeographs, adding machines, computing machines, addressographs, and other labor saving devices</i> , and exchange of same, including text books, furniture, instruments, equipment, and supplies for post schools and libraries, and for schools for officers and noncommissioned officers, <i>and for office safes, field safes, and field desks</i> .	Regular supplies; Clothing and equipage.
16	HORSE AND MULE SHOES, HORSESHOE NAILS, TOE CALKS, AND FOR SHOEING PUBLIC ANIMALS, INCLUDING THE AUTHORIZED NUMBER OF OFFICERS' HORSES.	Incidental expenses.
17	Rope and cordage.....	Regular supplies.
18	<i>oil lamps, lanterns, mineral oil and illuminating supplies therefor, AND FOR FLASHLIGHTS</i> .	Transportation of the Army and its supplies; Clothing and equipage.
18	Fire apparatus, and fire-alarm systems.....	Water and sewers.
18 1/2	FOR THE COLLECTION AND REMOVAL OF GARBAGE.....	Barracks and quarters: Regular supplies; Clothing and equipage.
19	Furniture for the public rooms of officers' messes and for officers' quarters at military posts as may be approved by the Secretary of War: <i>barrack furniture; wall lockers for use in permanent barracks and offices, screen doors, window screens, storm doors and sash, window shades for barracks, offices, and quarters, and linoleum and awnings for offices; refrigerators and ice boxes for barracks, quarters, and mess halls, and trunk lockers for issue to enlisted men.</i>	

Proposed changes in appropriation acts—Continued.

SUPPLIES AND SERVICES, QUARTERMASTER CORPS—Continued.

Item No.	Purposes of the appropriation.	Appropriation from which now procured.
20	<i>Tools, including blacksmiths', carpenters', wheelwrights', saddlers', harness makers', plumbers', electricians', cobblers', masons', farriers', woodworkers', machinists', tanners', band repair, typewriter repair, and tailors, and including axes, rakes, picks, hatchets, shovels, spades, forks, hoes, and other tools necessary in the operation of the Quartermaster Corps.</i>	Regular supplies; Incidental expenses; Transportation of the Army and its supplies; Clothing and equipage; Barracks; and quarters; Barracks and quarters, Philippine Islands; Roads, walks, wharves, and drainage; Construction and repair of hospitals.
21	<i>Band instruments, music racks, and music for bands, including trumpets and bugles.</i>	Clothing and equipage.
22	<i>Packing and crating of supplies, including baggage and property of troops, officers, warrant officers, nurses, enlisted men, field clerks, and civilian employees changing station, not to exceed the allowances fixed by regulations, and including members of the Officers' Reserve Corps and of the Enlisted Reserve Corps when ordered to active duty.</i>	Subsistence; Regular supplies; Incidental expenses; Transportation of the Army and its supplies; Water and sewers; Clothing and equipage; Barracks and quarters; Roads, walks, wharves, and drainage; Barracks and quarters, Philippine Islands; Construction and repair of hospitals.
23	<i>Fuel, gasoline, lubricants, and engine supplies for the operation of heating plants, lighting plants, pumping plants, locomotives, modern batteries, laundries, transports, boats, motor vehicles, TANKS, TRACTORS, ice plants, garbage incinerating plants, AEROPLANES, manufacturing plants, repair shops, storage depots, preparing food, and for other authorized purposes, including heat or fuel, water, and light for the authorized allowance of quarters for officers, warrant officers, nurses, enlisted men, field clerks, civilian employees when entitled thereto, contract surgeons when stationed at and occupying public quarters at military posts, officers of the National Guard attending service and garrison schools, and for recruits, guards, detachments, hospitals, schools, depots, shops, storehouses, offices, recruiting stations, and other authorized buildings, including the buildings erected at private cost in the operation of the act approved May 31, 1902, and buildings for a similar purpose on military reservation authorized by War Department regulations, including the necessary power for operation of moving picture machines AND OTHER EQUIPMENT OPERATED BY POWER REQUIRED FOR THE ENTERTAINMENT OF ENLISTED MEN</i>	Regular supplies; Water and sewers; Transportation of the Army and its supplies.
24	<i>Cleaning and preserving materials, janitors' supplies, disinfectants, supplies for sanitary purposes, crude oils, acids, and supplies required in the extermination of insects.</i>	Regular supplies; Incidental expenses; Transportation of the Army and its supplies; Water and sewers; Clothing and equipage; Roads, walks, wharves, and drainage.
25	<i>Paints, oils, and paint brushes, window glass, and glaziers' and painters' materials.</i>	Subsistence; Regular supplies; Incidental expenses; Transportation of the Army and its supplies; Clothing and equipage; Barracks and quarters; Barracks and quarters, Philippine Islands; Construction and repair of hospitals; Water and sewers.
26	<i>Storage and issue of supplies, including industrial equipment required in connection therewith</i>	Inland and port storage and shipping facilities.
27	<i>Cloth, woolens, materials, and for the purchase and manufacture of clothing, including special clothing and wearing apparel for aviation purposes, and for altering and fitting clothing.</i>	Clothing and equipage.
28	<i>For payment for clothing not drawn due to warrant officers of the Mine Planter Service and to enlisted men on discharge.</i>	Do.
29	<i>For renovating, washing, cleaning, and repairing clothing and equipment.</i>	Do.
30	<i>For mattresses, mattress covers, pillows, pillow cases, sheets, blankets, and mosquito bars; for equipage, tentage, paulins, canvas, flags, guidons, standards, water bags for use of troops, mail bags, individual equipment, CHAPLAINS' EQUIPMENT, badges, and other insignia, including materials for manufacture of same.</i>	Do.
31	<i>Toilet articles, barbers' and tailors' materials for use of general prisoners confined at military posts and camps without pay or allowances as authorized by regulations, and for applicants for enlistment while held under observation, including the issue of toilet kits to recruits upon their first enlistment, and housewives to the Army.</i>	Do.

Proposed changes in appropriation acts—Continued.

SUPPLIES AND SERVICES, QUARTERMASTER CORPS—Continued.

Item No.	Purposes of the appropriation.	Appropriation from which now procured.
32	Suit of citizens' outer clothing, to cost not exceeding \$30, to be issued to each soldier discharged otherwise than honorably; to each enlisted man convicted by civil court for an offense resulting in confinement in a penitentiary or other civil prison; to each enlisted man ordered interned by reason of the fact that he is an alien enemy, or for the same reason, discharged without internment; for indemnity to officers, WARRANT OFFICERS, NURSES, and men of the Army for clothing and bedding, etc., destroyed since Apr. 22, 1898, by order of medical officers of the Army for sanitary reasons.	Clothing and equipage.
33	Transportation of the Army, including transportation of troops when moving either by land or water, and of their baggage, including warrant officers, NURSES, AND FIELD CLERKS, and including members of the Officers' Reserve Corps and of the Enlisted Reserve Corps when ordered to active duty; for transportation of recruits and recruiting parties, and of applicants for enlistment between recruiting stations and recruiting depots.	Transportation of the Army and its supplies.
34	Transportation of the necessary agents and other employees, including per diem allowances in lieu of subsistence, not exceeding \$4 for those authorized to receive the per diem allowance, and including their baggage when entitled thereto.	Do.
35	Transportation of supplies, equipment, and materials for all branches of the Army from depots, posts, foundries, and armories or places of purchase or delivery to the several posts, camps, depots, arsenals, and fortifications, and from those places to troops in the field, and including transportation of funds of the Army.	Do.
36	Travel allowance to officers and enlisted men on discharge; for payment of travel allowance as provided in the act approved Feb. 28, 1919, to enlisted men of the National Guard on their discharge from the service of the United States, and to members of the National Guard who have been mustered into the service of the United States and discharged on account of physical disability; for payment of travel pay to officers of the National Guard on their discharge from the service of the United States, as prescribed in the act approved Mar. 2, 1901, including travel allowance to discharged prisoners and persons discharged from the Government Hospital for the Insane after transfer thereto from such barracks or place to their homes (or elsewhere as they may elect), provided the cost in each case shall not be greater than to the place of last enlistment.	Do.
37	Wharfage, tolls, and ferriages.	Do.
38	For payment of Army transportation lawfully due such land-grant railroads as have not received aid in Government bonds (to be adjusted in accordance with the decisions of the Supreme Court in cases decided under such land-grant acts), but in no case shall more than 50 per cent of full amount of service be paid.	Do.
39	Harness, saddles, pack saddles, bridles, horse blankets, halters, nose bags, horse equipment, and for leather and other materials required for the manufacture of same.	Do.
40	Wagons, carts, drays, other animal-drawn vehicles, and animal-drawn passenger-carrying vehicles as are required for the transportation of troops and supplies, and for official, military, and garrison purposes, and for repair parts.	Do.
41	Motor-driven trucks, tractors, and passenger-carrying vehicles required for the transportation of troops and supplies, and for official, military, and garrison purposes; for the supplies, materials, spare parts for the manufacture and repair of such vehicles, and for operation of repair shops in connection therewith.	Do.
42	For the hire, when vehicles procured for the Army are not available, of such motor-driven and animal-drawn vehicles as may be required for the transportation of troops and supplies, and for drayage and cartage.	Do.
43	For the purchase, charter, hire, and repair of ships, boats, and other vessels required for the transportation of troops and supplies, and for official, military, and garrison purposes, including vessels for harbor and river service and for the Mine Planter Service.	Do.
44	Expenses of sailing public transports, river and harbor boats, vessels of the Mine Planter Service, and other vessels, on the various rivers and harbors, the Gulf of Mexico, and the several oceans and seas, and for the operation of same.	Do.
45	For the hire of interpreters, spies, guides, clerks, laborers, teamsters, mechanics, checkers, inspectors, messengers, stenographers, storekeepers, and technical employees; masters, officers, crews, and other employees for the Army Transport Service, and vessels of the river and harbor service and of the Mine Planter Service, including the necessary employees at port terminals; and for such other employees as may be necessary in the operation of the Quartermaster Corps in connection with the supply of troops, and the storage, issue, care and protection of supplies, including employees required for the training of animals at remount depots and stations, and for employees for operation of laundries.	Regular supplies; Incidental expenses; Transportation of the Army and its supplies; Clothing and equipage; Barracks and quarters; Roads, walks, wharves, and drainage; Water and sewers.

Proposed changes in appropriation acts—Continued.

SUPPLIES AND SERVICES, QUARTERMASTER CORPS—Continued.

Item No.	Purposes of the appropriation.	Appropriation from wh. now procured.
46	Clerks, foremen, watchman, and organist for the United States Disciplinary Barracks.	Incidental expenses.
47	<i>Printing done at the Government Printing Office, and for printing done elsewhere within allotments authorized by the Joint Committee on Printing, and for printing department orders and reports, and including printing presses and other printing equipment as may be approved from time to time by the Joint Committee on Printing, and for repair parts, type, and such supplies as may be necessary, and for blank forms.</i>	Regular supplies.
48	Relief maps for issue to organizations.....	Do.
49	Commercial newspapers, market reports, and other periodicals for the Quartermaster Corps.	Do.
50	Newspapers, magazines, and other periodicals for issue to organizations, not to exceed the allowance fixed by the Secretary of War.	Do.
51	Postage on official correspondence when postage is required, and for registering and special delivery of official correspondence and valuable documents and medals, including postage for supplies shipped by parcel post.	Incidental expenses.
52	Telegrams, cablegrams, and radiograms on official business received and sent by officers of the Army.	Do.
53	Escorts to officers or agents of the Army to trains where military escorts can not be furnished.	Do.
54	Apprehension, securing, and delivery of deserters, including escaped military prisoners, and the expenses incident to their pursuit.	Do.
55	Donation of \$10 to each dishonorably discharged prisoner upon his release from confinement under court-martial sentence involving dishonorable discharge.	Do.
56	Prizes to be established by the Secretary of War for enlisted men of the Army who graduate from the Army schools for bakers and cooks, the total amount of such prizes at the various schools not to exceed \$—— per annum.	Subsistence
57	Incidental expenses of recruiting, including lithographing, printing, laundry, baths, bill posting, advertising, baggage, ice, removal of garbage, drinking water, and such other expenses as may be necessary.	Incidental expenses.
58	For care of public animals, including the care of officers' mounts.	New.
59	Operation of laundries, including the necessary materials and supplies; and for issue as may be authorized by regulations of laundry materials for use of general prisoners confined at posts without pay or allowances, and for applicants for enlistment while held under observation, and including, when authorized by the Secretary of War, free laundry service for enlisted men.	Regular supplies
60	For maintenance and repair of barracks, quarters, stables, storerooms, magazines, administrative and office buildings, chapels, hospitals, quarters for visiting officers and for noncommissioned officers entitled thereto, sheds, shops, and other buildings necessary for the shelter of troops, public animals and stores, including the necessary buildings for inland and port storage and the facilities in connection therewith and including the necessary buildings at several depots and in insular possessions, and for the Coast Artillery and military posts, and for repairs to buildings at the Army and Navy Hospital at Hot Springs, Ark.	Barracks and quarters; racks and quarters; impine Islands; and repair of barracks and quarters for hospitals; inland and storage and shipping; Barracks and Second Artillery; impine Islands and Military Panama Canal; quarters, storerooms; Panama Canal
61	For maintenance and repair of reclamation plants, laundries, pumping plants, electric lighting plants, lighting systems, ice plants, garbage-disposal plants, incinerators, heating plants, bakeries, cold-storage plants, and such other utilities as may be necessary for the health and comfort of troops; for sterilizers; chemicals for purifying water.	Clothing and equipment; regular supplies; Water and sewers
62	For maintenance and repair of water systems, including water-storage plants and filtration systems; sewer systems, and sewage-disposal systems and plants.	Water and sewers; construction and repair of buildings
63	For maintenance and repair of roads, docks, tracks, walks, wharves, and drainage at posts, camps, and stations, including supply depots and reserve depots, including care and improvement of grounds and for the care of CEMETERIES AT MILITARY POSTS and stations, and for dredging channels.	Roads, walks, wharves; drainage, inland storage and supplies; utilities; Transportation Army and its supplies; Shooting galleries; ranges.
64	For maintenance and repair of shooting galleries and ranges, including equipment and shelter therefor and including materials for making paste for marking targets.	Shooting galleries; ranges.
65	Construction, maintenance, and repair of military reservation fences.	Regular supplies.

Proposed changes in appropriation acts—Continued.

SUPPLIES AND SERVICES, QUARTERMASTER CORPS—Continued.

Item No.	Purposes of the appropriation.	Appropriation from which now procured.
66	<i>For rental of the authorized allowance of quarters for officers, warrant officers, nurses, and field clerks, on duty with troops at posts and stations where no public quarters are available; of barracks, or authorized allowance of quarters for noncommissioned officers and enlisted men on duty where public quarters are not available; of grounds for cantonments, camp sites, hospitals, target ranges, inland and port storage, and other military purposes; of buildings or portions of buildings for occupation by troops, for use as stables, storehouses, offices, hospitals, shops, and other military purposes; of buildings and parts of buildings for inland and port storage; of docks, tracks, wharves, piers, and other port facilities when necessary, and for hire of recruiting stations and lodgings for recruits.</i>	Incidental expenses; Barracks and quarters; Barracks and quarters, Philippine Islands; Construction and repair of hospitals; Inland and port storage and shipping facilities.
67	For rent of buildings and parts of buildings in the District of Columbia for military purposes.	Rent of buildings, Quartermaster Corps.
68	<i>Sales to officers, warrant officers, nurses, enlisted men, and other persons entitled by regulations to purchase supplies.</i>	Regular supplies.
69	Expenses incident to the purchase, testing, inspection, care, and protection, preservation, issue, sale, and accounting for supplies, including scales and marking outfits.	Subsistence; Regular supplies.
70	<i>Such other supplies and services as are necessary and authorized by law in the movements and operation of the Army, and at military stations, and not expressly assigned to any other department. All the money appropriated under the title "Supplies and services, Quartermaster Corps," shall be disbursed and accounted for as "Supplies and services, Quartermaster Corps," and for that purpose shall constitute one fund.</i>	Incidental expenses.

ANIMALS FOR THE ARMY.

1	For the purchase of horses of ages, sex, and size as may be prescribed by the Secretary of War for remounts, for officers entitled to public mounts, for the Cavalry, Artillery, Signal Corps, Engineers, the United States Military Academy, service schools, staff colleges, Indian scouts, and for such Infantry, members of the Medical Department and other troops in field campaigns as may be required to be mounted; for the purchase and hire of draft and pack animals in such numbers as are actually required for the service, including replacement of unserviceable animals, and for expenses incident thereto. <i>All the money hereinbefore appropriated for purchase of animals for the Army shall be disbursed and accounted for as "Animals for the Army" and for that purpose shall constitute one fund.</i>	Horses for Cavalry, Artillery, Engineers, etc.; Transportation of the Army and its supplies.
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CONSTRUCTION FOR THE ARMY.

1	For the construction of barracks, quarters, stables, storehouses, magazines, administrative and office buildings, CHAPELS, hospitals, sheds, shops, and other buildings necessary for the shelter of troops, public animals, and stores; for the necessary buildings for inland and port storage, and the facilities in connection therewith; for construction of the necessary buildings at seacoast defenses, and in insular possessions, and for Coast Artillery and military posts; for construction required at the Army and Navy Hospital at Hot Springs, Ark.	Barracks and quarters; Barracks and quarters, Philippine Islands; Construction and repair of hospitals; Quarters for hospital stewards; Inland and port storage and shipping facilities; Barracks and quarters, seacoast defenses; Barracks and quarters, Seacoast Artillery, Philippine Islands and Hawaiian Islands; Military posts, Panama Canal; Army quarters, storehouses, etc., Panama Canal.
2	For the construction of reclamation plants, laundries, pumping plants, electric lighting plants, including the installation of lighting systems, heating plants, heating systems, ice plants, garbage disposal plants, incinerators, bakeries, cold storage plants, and such other utilities as may be necessary for the health and comfort of the troops, including machinery and installation thereof, and equipment necessary to complete such plants for operation.	Barracks and quarters; Water and sewers; Regular supplies; Inland and port storage and shipping facilities; Construction and repair of hospitals; Clothing and equipage.
3	For the construction of water systems, including water-storage plants and filtration systems, and for introducing water into buildings and conducting same from a distance; for construction of sewer systems and sewage disposal systems and plants, and for the procurement and installation of all equipment and appliances in connection therewith, and for installation in buildings and otherwise in the construction of buildings, plants, etc.	Water and sewers; Construction and repair of hospitals; Inland and port storage and shipping facilities.

Proposed changes in appropriation acts—Continued.

CONSTRUCTION FOR THE ARMY—Continued.

Item No.	Purposes of the appropriation.	Appropriation from which now procured.
4	For the construction of roads, docks, tracks, walks, wharves, and drainage at posts, camps, and stations, <i>including supply depots and reserve depots.</i>	Roads, walks, wharves, and drainage; Inland and port storage and shipping facilities; Construction and repair of hospitals.
5	For the construction of shooting galleries and ranges, <i>including equipment and installation thereof</i> ; for shelter, and for preparation of grounds in connection with small-arms target practice, machine-gun practice, and field artillery practice.	Shooting galleries and ranges.
6	For construction of additions to buildings, including alterations; for construction of cantonments and camps, and for flooring and framing tents.	Barracks and quarters; Barracks and quarters, Philippine Islands; Construction and repair of hospitals; Quarters for hospital stewards; Inland and port storage and shipping facilities; Barracks and quarters, seacoast defenses; Barracks and quarters, Seacoast Artillery, Philippine Islands and Hawaiian Islands; Military posts, Panama Canal; Army quarters, storehouses, etc., Panama Canal.
<i>All the money hereinbefore appropriated under the title "Construction for the Army" shall be disbursed and accounted for as "Construction for the Army" and for that purpose shall constitute one fund, and shall remain available until expended.</i>		

LEGISLATIVE PROVISIONS.

1	<i>Authority is hereby given to expend from appropriation for "Supplies and services, Quartermaster Corps" not to exceed \$..... for supplying meals or furnishing commutation of rations to enlisted men of the Regular Army, THE ORGANIZED RESERVE, THE ENLISTED RESERVE CORPS, and the National Guard who may be competitors in the national rifle match: Provided, That no competitor shall be entitled to commutation of rations in excess of \$..... per day, and when meals are furnished no greater expense than that sum per man per day for the period the contest is in progress shall be incurred.</i>	Subsistence of the Army annual Army appropriation act.
2	<i>Subsistence of patients in hospitals, Canal Zone: The subsistence of the said patients, except commissioned officers, shall be paid to said hospitals out of the appropriation for Supplies and services, Quartermaster Corps, at the rates provided therein for commutation of rations for enlisted patients in general hospitals.</i>	Hospital care, Canal Zone, garrisons, annual Army appropriation act.
3	<i>Compensation for service of certain land-grant railroads: That such compensation shall be computed upon the basis of the tariff or lower special rates for like transportation performed for the public at large, and shall be accepted as in full for all demands for such service.</i>	Transportation of the Army annual Army appropriation act.
4	<i>Payment of Army transportation to land-grant railroads: That, in extending the money appropriated by this act, a railroad company which has not received aid in bonds of the United States and which obtained a grant of public land to aid in the construction of its railroad on conditions that such railroad should be a post route and military road, subject to the use of the United States for postal, military, naval, and other Government services, and also subject to such regulations as Congress may impose restricting the charge for such Government transportation, having claims against the United States for transportation of troops and munitions of war and military supplies and property over such aided railroads, shall be paid out of the moneys appropriated by the foregoing provisions only on the basis of such rate for the transportation of such troops and munitions of war and military supplies and property as the Secretary of War shall deem just and reasonable under the foregoing provision, such rate not to exceed 50 per cent of the compensation of such Government transportation as shall at that time be charged to and paid by private parties to any such company for like and similar transportation, and the amount so fixed to be paid shall be accepted as in full for all demands for such service: Provided further, That nothing in the preceding provision shall be construed to prevent the accounting officers of the Government from making full payment to land-grant railroads for transportation of property or persons where the courts of the United States have held that such property or persons do not come within the scope of the deductions provided for in the land-grant acts.</i>	Transportation of the Army annual Army appropriation act.

Proposed changes in appropriation acts—Continued.

LEGISLATIVE PROVISIONS—Continued.

Item No.	Purposes of the appropriation.	Appropriation from which now procured.
5	<i>Hereafter</i> no money appropriated for the support of the Army shall be expended for the hire, operation, maintenance, or repair of any motor-propelled vehicle, which shall be employed wholly or in part for personal, social, or similar use, except such use as is prescribed by order for the transportation of Army personnel in connection with the recreational activities of the Army.	Transportation of the Army, annual Army appropriation act.
6	<i>Hereafter</i> , in the joint discretion of the Secretary of War and chairman of the Shipping Board, and when space is available, civilian passengers and shipments of commercial cargo may be transported on Army transports in the transatlantic service, at such times as space is not available on commercial lines, at rates not less than those charged by commercial steamship companies, between the same ports, for the same class of accommodations, the receipts from which shall be covered into the Treasury of the United States to the credit of miscellaneous receipts.	Annual Army appropriation act.
7	§ — of the appropriation " <i>Supplies and services, Quartermaster Corps,</i> " shall be available for additional pay for employees on harbor boats, Quartermaster service, in lieu of subsistence.	Transportation of the Army, annual Army appropriation act.
8	<i>Hereafter</i> no greater sum than \$50 for each deserter or escaped military prisoner shall, in the discretion of the Secretary of War, be paid to any civil officer or citizen for the apprehension, securing, and delivery of such deserters or escaped military prisoners and the expenses incident to their pursuit.	Incidental expenses, annual Army appropriation act.
9	<i>Hereafter</i> prizes may be established by the Secretary of War for enlisted men of the Army who graduate from the Army schools for bakers and cooks, the total amount of such prizes at the various schools not to exceed § — per annum, to be provided from the appropriation " <i>Supplies and services, Quartermaster Corps.</i> "	Subsistence of the Army, annual Army appropriation act.
10	HEREAFTER THE SECRETARY OF WAR MAY AUTHORIZE FREE LAUNDRY SERVICE FOR ENLISTED MEN.	New.
11	HEREAFTER SURPLUS ICE MAY BE DISPOSED OF, LAUNDRY WORK MAY BE DONE FOR ALL DEPARTMENTS OF THE GOVERNMENT, AND SURPLUS ELECTRIC LIGHT AND POWER MAY BE SOLD ON TERMS AND IN ACCORDANCE WITH SUCH REGULATIONS AS MAY BE PRESCRIBED BY THE SECRETARY OF WAR PROVIDED THAT SURPLUS ICE, ELECTRIC LIGHT, AND POWER SHALL NOT BE SOLD, AND LAUNDRY WORK SHALL NOT BE PERFORMED AT GOVERNMENT PLANTS WHEN SAME SHALL COME IN COMPETITION WITH PRIVATE ENTERPRISE FOR SALE TO THE PUBLIC: PROVIDED, THAT THE FUNDS RECEIVED FROM SUCH SALES AND IN PAYMENT FOR SUCH LAUNDRY WORK, AFTER THE COST OF REPLACEMENT OF PERSONAL PROPERTY OF INDIVIDUALS, AND NOT THE PROPERTY OF THE UNITED STATES, WHICH MAY BE DAMAGED, LOST, OR DESTROYED IN THE PROCESS OF LAUNDERING, IS DEDUCTED, SHALL BE ACCOUNTED FOR IN ACCORDANCE WITH THE METHODS PRESCRIBED BY LAW, AND COVERED INTO THE TREASURY TO THE CREDIT OF THE APPROPRIATION FROM WHICH THE COST OF OPERATION OF SAID PLANTS IS PAID, AND SHALL REMAIN AVAILABLE THROUGHOUT THE FISCAL YEAR FOLLOWING THAT IN WHICH THE SALES WERE EFFECTED, FOR THE PURPOSE OF THAT APPROPRIATION FROM WHICH THE SUPPLIES OR SERVICES WERE AUTHORIZED TO BE FURNISHED: PROVIDED FURTHER, THAT LAUNDRY WORK SHALL BE DONE FOR OTHER BUREAUS OF THE WAR DEPARTMENT WITHOUT REIMBURSEMENT THEREFOR.	Do.
12	HEREAFTER THE SECRETARY OF WAR MAY, IN HIS DISCRETION AND UNDER SUCH REGULATIONS AS HE MAY PRESCRIBE, FURNISH TO ENLISTED MEN OF THE REGULAR ARMY COMMUTATION OF LAUNDRY SERVICE AT NOT TO EXCEED \$2.50 PER MAN PER MONTH AND COMMUTATION OF SERVICES IN THE RECLAMATION AND RENOVATION OF GOVERNMENT ISSUED CLOTHING AT NOT TO EXCEED \$1 PER MAN PER MONTH, WHERE GOVERNMENT FACILITIES FOR DOING SUCH WORK ARE NOT PROVIDED, AND WHERE SUCH ENLISTED MEN ARE ENTITLED TO RECEIVE COMMUTATION OF RATIONS AND QUARTERS.	Do.
13	<i>Hereafter</i> shooting galleries and ranges provided for under the appropriation " <i>Supplies and services, Quartermaster Corps,</i> " shall be open as far as practicable to the National Guard and to organized rifle clubs under such regulations as may be prescribed by the Secretary of War.	"Shooting galleries and ranges," annual Army appropriation act.
14	The money appropriated under " <i>Supplies and services, Quartermaster Corps,</i> " for rent of buildings and parts of buildings in the District of Columbia, shall not be available if space is provided by the Public Buildings Commission in Government-owned buildings.	Rent of buildings, Quartermaster Corps, annual Army appropriation act.

Proposed changes in appropriation acts—Continued.

LEGISLATIVE PROVISIONS—Continued.

Item No.	Purposes of the appropriation.	Appropriation from which now procured.
15	<i>Purchase of articles manufactured at Government arsenals:</i> Hereafter no part of the moneys appropriated for the support of the Army shall be used or expended for the purchase or acquirement of any article or articles that at the time of the proposed acquirement can be manufactured or produced in each or any of the Government arsenals of the United States for a sum less than it can be purchased or procured otherwise. That all orders or contracts for the manufacture of material pertaining to approved projects heretofore or hereafter placed with Government-owned establishments shall be considered as obligations in the same manner as provided for similar orders placed with commercial manufacturers, and the appropriations shall remain available for the payment of the obligations so created as in the case of contracts or orders with commercial manufacturers.	Annual Army appropriation act.
16	Hereafter no part of the appropriation for " <i>Animals for the Army</i> " shall be expended for polo ponies except for West Point Military Academy, and such ponies shall not be used at any other place.	Horses for Cavalry, Artillery, Engineers, etc., annual Army appropriation act.
17	Hereafter the number of animals purchased under the appropriation, " <i>Animals for the Army</i> ," added to the number now on hand, shall be limited to the actual needs of the service, including reasonable provisions for replacements and remounts, and unless otherwise ordered by the Secretary of War, no part of the funds appropriated for animals for the Army shall be paid out for horses not purchased by contract after competition duly invited by the Quartermaster Corps and an inspection under the direction and authority of the Secretary of War. When practicable, horses and mules shall be purchased in open market at all military posts and stations, when needed, within a maximum price to be fixed by the Secretary of War. No part of the appropriation for " <i>Animals for the Army</i> " shall be expended for the purchase of any horse below the standard set by Army Regulations for Cavalry and Artillery horses, except when purchased as remounts or for instruction of cadets at the United States Military Academy.	Do.
18	That not to exceed \$250,000 of the appropriation " <i>Animals for the Army</i> " shall be available for the encouragement of the breeding of riding horses suitable for the Army, including cooperation with the Bureau of Animal Industry, Department of Agriculture, and for the purchase of animals for breeding purposes and their maintenance: <i>Provided</i> , That the Secretary of War may, in his discretion, and under such rules and regulations as he may prescribe, accept donations of animals for breeding and donations of money or other property to be used as prizes or awards at agricultural fairs, horse shows, and similar exhibitions, in order to encourage the breeding of riding horses suitable for Army purposes: <i>And further provided</i> , That the Secretary of War shall report annually to Congress, at the commencement of each session, a statement of all expenditures under this appropriation, and full particulars of means adopted and carried into effect for the encouragement of the breeding of riding horses suitable for the military service.	Do.
19	Hereafter no part of the appropriations made for the support of the Army shall be available for the salary or pay of any officer, manager, superintendent, foreman, or other person having charge of the work of any employee of the United States while making or causing to be made, with a stop watch or other time-measuring device, a time study of any job of any such employee between the starting and completion thereof, or of the movements of any such employee while engaged upon such work; nor shall any part of the appropriations made for the support of the Army be available to pay any premium or bonus or cash reward to any employee in addition to his regular wages, except for suggestions resulting in improvements or economy in the operation of any Government plant.	Annual Army appropriation act.
20	THE AMOUNT OF FUNDS PERTAINING TO ANY ITEM OR ITEMS OF THE APPROPRIATIONS "CONSTRUCTION FOR THE ARMY," "ANIMALS FOR THE ARMY," AND "SUPPLIES AND SERVICES, QUARTERMASTER CORPS," SHALL NOT BE EXCEEDED IF ADMINISTRATIVE JURISDICTION OVER THE EXPENDITURE THEREOF IS ASSIGNED TO ANY BUREAU OR SERVICE OTHER THAN THE QUARTERMASTER CORPS.	

Mr. DENT. Is the form which you propose to suggest anything like the form which Gen. Sharpe suggested to the committee when he was Quartermaster General?

Gen. ROGERS. It is quite similar to that. I think Maj. Daly worked it up. But this is considerable of an improvement over that, I think.

For example, if the committee had authorized us to put up a separate hospital building at Walter Reed, an additional building, we would authorize so much to put up that hospital building absolutely complete, everything connected with the completion of that building, so that it would be ready to turn over to the Medical Corps when we got through with it.

Mr. CRAMTON. In other words, the appropriating committee would have a chance to really say something about expenditures?

Gen. ROGERS. You will know just what you are appropriating the money for.

Mr. CRAMTON. At the present time I do not see that we have much to say about it. We can not really have much to say as to what is going to be done.

Gen. ROGERS. That has not been our fault. That is a system that has been handed down for years.

Mr. CRAMTON. I do not mean to infer that it is your fault, but I infer that you have had difficulty with it.

REMOVAL OF GARBAGE.

(See p. 608.)

Mr. ANTHONY. In reference to the item for the removal of garbage, for which you are asking \$92,742, where are you going to expend that amount for the removal of garbage?

Col. WARFIELD. During the past year there was turned into the Treasury under miscellaneous receipts approximately \$250,000 from the collection and sale of garbage at all camps, posts, and stations in the Army, and while we had a large Army and a large number of posts and camps we could very easily get contractors to bid on that proposition of removing the garbage at so much per man, and we could easily get them to bid on the removal of the manure at so much per animal. That proposition at that time was very easily handled.

Now, when the Army is getting smaller, there is less garbage and quite a few of the men have lost money, and we find that it is difficult to make such contracts.

Mr. ANTHONY. You are beginning to have to pay them to haul the garbage?

Col. WARFIELD. We figure that during this coming year we will obtain from the sale of garbage \$105,485.02. I think, too, at some places, where we can not get people to do that, it is going to cost \$92,742 to pay them to carry the garbage away, and that will result in an actual saving of \$12,743. If I could use the first appropriation to pay for the second proposition, I could turn into the Treasury over \$12,000 without any additional appropriation at all.

Mr. ANTHONY. So the garbage proposition is self-sustaining?

Col. WARFIELD. It is self-sustaining, and will result in a profit to the Government of over \$12,000. Last year we made \$250,000.

Mr. Sisson. To whom do you sell this garbage?

Col. WARFIELD. To any contractor in the vicinity who will buy it. Then there are several people in different places who have started pig farms, and a great many of the farmers buy the manure, and in several cases we have sold it to the State reclamation commission, and they have resold it to the farmers.

Mr. ANTHONY. At what places do you have to pay for the removal of garbage? Are there not facilities at the posts to dispose of it?

Col. WARFIELD. Yes, sir; at the posts. This is at the depots. At some places we have to make contracts with the cities to take the garbage away.

Mr. ANTHONY. Do not the cities remove the garbage?

Col. WARFIELD. Not at some of the plants.

Mr. ANTHONY. At what plants?

Col. WARFIELD. In Chicago, at the Quartermaster Corps depot.

Mr. ANTHONY. What class of garbage would that be, just trash that accumulates?

Col. WARFIELD. Yes, sir.

Mr. Sisson. How do they handle the trash and garbage? The Committee on Appropriations has to deal with that in the District of Columbia, and I was wondering how they handle it in Chicago.

Col. WARFIELD. In our contracts the garbage is segregated into different classes. For instance, we have bread, cooked meats, and other waste materials.

Mr. Sisson. The city does the segregation itself, does it?

Col. WARFIELD. No, sir; we have to segregate it in cans in some cases. Each contract is different from the others. It depends entirely on local conditions.

Mr. Sisson. I was asking particularly about Chicago. I was wondering whether Chicago had a reduction plant.

Col. WARFIELD. I think it does in most cases. They carry it away and handle it themselves.

Mr. CRAMTON. Of course, in Washington there is a collection of garbage from residences, but the hotels and large restaurants must remove their own garbage.

Col. WARFIELD. We got an average of \$1 a hundred pounds for bread and about \$5 a hundred pounds for cooked meats, and in reference to the dead animals, we get on an average of about \$10 per animal.

Mr. ANTHONY. You do not get that now, do you?

Col. WARFIELD. I think it is from \$5 to \$10 per animal. It depends on whether or not the man wants it.

Mr. ANTHONY. The items for forage for the Reserve Officers' Training Corps and for Reserve Officers' Training Corps equipment are carried in another place?

Col. HANNAY. They were eliminated; but we were directed in a letter of instructions from the chief of finance to add \$270,000 under regular supplies to provide water, fuel, and light for temporary structures, and screening, and to cover damages resulting from field exercises and incidentals. That amount was cut down by the Secretary of War to \$239,544, as shown in this estimate.

Mr. ANTHONY. Is that item to be expended at camps already established for that purpose?

Gen. LORD. The chief of finance merely transmitted the instructions he got from the Secretary of War, and these instructions involved an additional appropriation under waters and sewers incidental expenses, and barracks and quarters, and those items will be explained by the representative of the Reserve Officers' Training Corps when he comes before the committee on his items.

Mr. ANTHONY. That completes the items for regular supplies?

Col. HANNAY. Yes, sir.

. CHANGES IN LANGUAGE.

Mr. ANTHONY. Let us now take up the change in language under regular supplies. I see on page 42 you have omitted the words "Regular Army Reserves" and inserted the words "Enlisted Reserve Corps."

Col. HANNAY. Yes, sir; we have omitted "Regular Army Reserve." Then, on page 43, we have also eliminated the words "cold storage." That is eliminated here provisionally, with the understanding it is to be carried under the item for inland-port storage.

Mr. ANTHONY. Under another storage?

Col. HANNAY. Yes, sir. Then the word "officers," on page 43, is an error. It should be "offices."

Mr. ANTHONY. What have you to say about the proviso at the end of the paragraph on page 44: "*Provided*, That not to exceed the following sums may be used in the erection and completion of projects named: \$40,000 for a laundry at San Juan, P. R.; \$42,300 for improvement of electric power supply system at Governors Island, N. Y."

Col. HANNAY. That phrase should be omitted.

Mr. ANTHONY. What phrase?

LAUNDRY, SAN JUAN, P. R.

Col. HANNAY. The phrase "\$40,000 for a laundry at San Juan, P. R." That has been omitted.

Mr. ANTHONY. Who decided to eliminate that?

Col. HANNAY. The Secretary of War.

IMPROVEMENT ELECTRIC POWER SUPPLY, GOVERNORS ISLAND, N. Y.

Mr. ANTHONY. What about the \$42,300 for improvement of electric power supply system at Governors Island, N. Y.?

Col. HANNAY. That should be kept in.

Mr. ANTHONY. What is the argument for that?

Mr. Sisson. Is this \$40,000 reflected in the total?

Gen. ROGERS. No, sir; it was taken out of the figures.

Mr. Sisson. But it has been reflected also in the total?

Gen. ROGERS. Yes, sir.

Mr. ANTHONY. What have you to say about the \$42,300 which it is proposed to expend at Governors Island?

Col. HANNAY. Lieut. Brill will explain that.

Lieut. BRILL. The present electrical power distribution system of Governors Island was reported as unsafe by an inspector some time ago. So we sent an expert to investigate it and he found that Governors Island is at present supplied with power by a dual system. They have two different cables from the power plant at Brooklyn because of the fact that Governors Island is occupied by different activities, as department headquarters, as an ordnance arsenal, and for some storage warehouses. The ordnance arsenal and the rest of the post have different power and lighting systems, which entail the employment of dual operators and substations.

The distribution system for the main part of the island has been installed something like 20 years, and the substation is in such condition that they say it will have to be almost entirely refitted. That is the report. Instead of going to the expense of trying to refit the present substations and continue the dual system we want to do away with that system and establish one single substation with one connection with the power plant and one distribution system for the entire island; both for the quartermaster and the headquarters and the ordnance arsenal, and that will make it possible to employ one set of operators instead of two.

Mr. ANTHONY. Do you purchase all of the electric power that is used on Governors Island.

Lieut. BRILL. Yes, sir.

Mr. ANTHONY. From the Brooklyn company?

Lieut. BRILL. I think it is purchased from the Brooklyn Edison Co.

Mr. ANTHONY. This proposed expenditure would be to simplify the distribution?

Lieut. BRILL. Not only that but to reduce the number of operators required for the substations.

Mr. ANTHONY. At a post like that, where you purchase your electricity from a generating concern outside you simply receive the electric power at one station and the Government has to pay all the expenses of its distribution?

Lieut. BRILL. From there on; yes, sir.

Mr. Sisson. Why do you not make an arrangement to let the same concern care for the system that furnishes you your light?

Lieut. BRILL. If we are going to make an arrangement with that concern to do that, to do all your installation work, you have to pay a higher rate.

Mr. Sisson. I never have seen a case where the Government did that kind of thing as cheap as a private individual.

Mr. ANTHONY. You get the wholesale price when you purchase that electricity when they supply it through one supply line and you pay for it through one meter?

Lieut. BRILL. At the wholesale rates.

Mr. ANTHONY. In a locality I am familiar with the Government pays about 4 cents a kilowatt hour for electricity used at a post in bulk, whereas the individual consumers would have to pay from 10 to 12 cents.

Lieut. BRILL. That is true. In a number of places we get it for less than 4 cents per kilowatt hour.

Mr. Sisson. Do you count the overhead charge of your employees and deterioration, and the money expended on the plant to establish it?

Lieut. BRILL. The cost per kilowatt hour does not include the cost of maintaining the distribution system.

Mr. Sisson. I would have to be shown that you are saving any money on that.

Lieut. BRILL. If the company had to do all the maintenance of the distribution system the way they do in the city we would probably have to pay three times as much as we have to pay now.

Mr. Sisson. Even if you do that it does not mean anything to me unless I know how much it is costing you to keep up the plant that

receives the current from the city and the overhead charge which it costs the Government.

COST OF ELECTRICITY.

Lieut. BRILL. I can insert in the record a statement showing the cost of the purchase of the electricity at three or four or as many more as you like of the representative camps and the cost of maintaining the distribution systems, and compare that with what it would cost to purchase direct the same amount of electricity.

(The statement referred to above follows:)

Post.	Total kilowatt hours purchased.	Rate.		Cost.	Cost, maintenance and repair.	Total.
		Minimum.	Maximum.			
Camp Grant.....	2,235,478	\$0.0270	\$0.03267	\$61,815.71	\$23,497.17	\$85,252.88
Camp Dix.....	1,583,939	.02	.02	40,616.51	15,846.89	55,463.40
Camp Meade.....	2,286,898	.0225	.0325	74,242.75	41,472.42	115,715.17
Camp Jackson.....	1,372,800	.025	.025	33,320.50	34,975.71	68,296.21
Camp Pike.....	1,868,622	.0206	.0256	37,132.00	14,397.88	51,511.88
Camp Funston.....		.0358	.0470	51,103.00	19,068.08	70,161.08
Camp Devens.....	1,641,100	.0304	.0307	24,616.50	56,039.92	80,656.42
Camp Travis.....	1,019,592	.04	.04	34,178.17	18,318.04	52,496.21
Camp Lewis.....	1,683,979	.00765	.00804	16,283.91	22,330.00	38,613.91
Camp Sherman.....	1,498,500	.0387	.0392	70,092.02	26,688.79	95,787.81
Camp Bragg.....	728,503	.0261	.0338	19,838.11	16,364.66	36,202.77
Camp Benning.....	626,440	.0075	.075	5,768.45	10,492.31	16,260.76
Camp Normoyle.....	333,857	.04	.04	11,595.00	5,361.28	16,956.28
Camp Jessup.....	501,825	.014	.014	5,564.71	2,576.79	8,141.50
Camp Taylor.....	1,506,627	.025	.025	37,665.68	6,801.93	44,467.61
Camp Custer.....	1,144,458	.0158	.0165	20,207.00	19,247.80	39,454.80

To purchase the same quantity of current shown above at the rates which prevail to ordinary consumers in the nearest large cities would have cost several times the above totals as shown by the following figures. The rate per kilowatt hour used in compiling these estimated costs are the rates actually charged in the following cities: Boston; New York City; Columbus, Ohio; Washington, D. C.; Atlanta, Ga.; Kansas City, Mo.; St. Louis, Mo.; New Orleans, La.; Omaha, Nebr.; and San Francisco, Calif. The rate in the city nearest the camp has been used in each case.

Post.	Estimated cost at city rates.	Total actual cost (as given above).
Camp Grant.....	\$165,886.95	\$85,252.88
Camp Dix.....	190,072.63	55,463.40
Camp Meade.....	214,291.80	115,715.17
Camp Jackson.....	117,766.56	68,296.21
Camp Pike.....	136,163.61	51,511.88
Camp Funston.....	106,243.44	70,161.08
Camp Devens.....	164,110.00	80,656.42
Camp Travis.....	89,724.10	52,496.21
Camp Lewis.....	105,248.69	38,613.91
Camp Sherman.....	123,880.00	95,787.81
Camp Bragg.....	62,154.68	36,202.77
Camp Benning.....	53,669.38	16,260.76
Camp Normoyle.....	29,379.42	16,956.28
Camp Jessup.....	42,876.80	8,141.50
Camp Taylor.....	120,530.16	44,467.61
Camp Custer.....	91,558.64	39,454.80

Mr. Sisson. I have some grave doubts as to whether you are saving any money at all if you employ men to look after your substations, and I believe you have two now.

Lieut. BRILL. At Governors Island there are two substations.

Mr. Sisson. And you propose to reduce those to one?

Lieut. BRILL. Yes, sir.

Mr. Sisson. Then, by having only one you reduce the overhead charge by having only one man to look after one station instead of two, thereby dividing the salary by two. Would that be the result?

Lieut. BRILL. Yes, sir.

Mr. ANTHONY. Have you figured out the expenditure in such a way that it shows that the Government will save money?

Lieut. BRILL. In the cost of the current?

Mr. ANTHONY. Yes.

Lieut. BRILL. Our representative conferred with the representative of the Brooklyn Edison Co. in drawing up this plan for this distribution, and it meets with high approval from their engineers.

Mr. Sisson. Of course, you ought to get very cheap current if there is no expense to the company furnishing you the current; that is, if they have nothing to do with the wire distribution or repair on a portion of the plant. In that case you ought to get a very cheap rate, because they simply generate the current.

Mr. CRAMTON. If this change which you recommend is made, how much will the saving per annum amount to?

Lieut. BRILL. I will insert that in the record, together with the statement Mr. Sisson asked for.

(The statement referred to follows:)

By making the changes in the electrical distribution system of Governors Island, for which money is requested, it is estimated that a saving of 10 per cent in the total amount of current consumed will be effected. On the basis of the cost for the fiscal year 1920, this represents a saving of \$3,132.46. There are at present six men employed in maintaining and operating the distribution system at this post, the total annual salary paid these men being \$7,488. It is expected that after the changes requested have been made it will be possible to reduce this force 50 per cent, making a saving of \$4,998 per year.

The total saving per year anticipated is \$8,130.45.

INCIDENTAL EXPENSES.

(See p. 898.)

Mr. ANTHONY. The next section covers incidental expenses, under which you are asking for a total of \$16,341,906. That is based on an army, I take it, of 280,000 men, on which you have made no reduction for an army of 175,000 men. •

Col. HANNAY. No, sir.

Mr. ANTHONY. Why have you not been able to make a reduction in the estimate for the lesser sized Army?

Capt. BARNES. In view of the fact that the hire of employees of the Quartermaster Corps is paid from incidental expenses, and the strength of the Army would not affect the number of employees at this time.

Mr. ANTHONY. In other words, these expenses are what you call constants?

Capt. BARNES. Practically all constants.

Col. HANNAY. The greatest influencing factor is the tremendous stocks on hand and the care and handling of those stocks.

ALLOTMENT OF FUNDS.

Mr. ANTHONY. Last year \$10,000,000 was appropriated under this item. Can you tell us how much has been allotted this year?

Gen. LORD. The total amount has been allotted, the flat amount of \$10,000,000, and there are some obligations over and above that amount of approximately \$1,000,000.

Incidental expenses.

Item No.	Name of item.	Apportioned fiscal year 1921 for 175,000 men.		Estimated fiscal year 1922 for 150,000 men.		Estimated fiscal year 1922 for 175,000 men.		Estimated fiscal year 1922 for 200,000 men.	
		Amount.	Capita.	Amount.	Capita.	Amount.	Capita.	Amount.	Capita.
0207106	Additional expenditures as are necessary by law in the movement and operation of the Army and at military posts which are not expressly assigned to any other department	\$282,855.00	\$1.613	\$319,000.00	\$2.126	\$319,000.00	\$1.822	\$319,000.00	\$1.199
0114105	Donation, (\$10) to discharged military prisoners	40,000.00	.223	30,000.00	.20	30,000.00	.171	30,000.00	.107
0106105	Labor, hire of, Quartermaster Corps	2,373,870.00	13.564	6,182,661.00	41.217	6,182,661.00	35.329	6,182,661.00	22.08
0104105	Interpreters, spies and guides, hire of	56,820.00	.341	49,471.00	.329	49,471.00	.282	49,471.00	.176
0107105	Pay of clerks and other employees, Quartermaster Corps	4,444,850.00	25.399	8,499,638.00	54.597	8,499,638.00	48.612	8,499,638.00	30.29
105.105	Pay of clerks, foremen, orphans at disciplinary barracks	28,904.00	.165	29,165.00	.194	29,165.00	.165	29,165.00	.104
106.106	Recruiting expenses, not including lodgings	483,000.00	2.76	410,650.00	2.737	453,000.00	2.76	689,000.00	2.46
108.106	Rewards for apprehension and delivery of deserters and escaped military prisoners	77,700.00	.444	65,400.00	.436	77,000.00	.44	91,000.00	.326
209.105	Telegrams, cablegrams, and postage	129,500.00	.74	325,000.00	2.166	350,000.00	2.00	400,000.00	1.428
	Employees for fine ice service	2,000,000.00	11.886						
	Clerks for service schools added by direction of Secretary of War in letter to Chief of Finance, Oct. 11, 1920)			36,922.00	.246	36,922.00	.21	36,922.00	.131
	Experimental and development work at the Bureau of Standards (added by direction of Secretary of War in letter to Chief of Finance Oct. 11 and Oct. 28, 1920)			25,000.00	.166	25,000.00	.14	25,000.00	.089
	Total	10,000,000.00	57.142	15,962,867.00	105.419	16,071,857.00	91.839	16,341,857.00	58.368

* \$100,000 of this item is for draft deserters, letter A. G. O., Nov. 11, 1920.

Mr. ANTHONY. You think there will be a deficiency of over a million dollars?

Gen. LORD. At the present time there is that much, apparently. This subappropriation has been overobligated to-day by approximately \$1,000,000.

Mr. ANTHONY. That amount will be increased before the end of the fiscal year?

Gen. LORD. Necessarily; yes.

Mr. CRAMTON. To \$6,000,000 or \$7,000,000?

Col. HANNAY. We figure it will be \$6,000,000, approximately.

Mr. SISSON. Are we considering the amount of the \$16,341,906?

Col. HANNAY. That has not been reduced.

Mr. SISSON. And you are insisting on that amount?

Col. HANNAY. There has been no reduction.

Mr. CRAMTON. You state that during the current year the expenses will be about \$16,000,000?

Col. HANNAY. Yes, sir.

APPROPRIATION, 1920.

Mr. ANTHONY. There was appropriated in 1920 \$30,000,000. How much did you expend in 1920?

Gen. LORD. The total expenditure for 1920 was \$29,321,181.74. These are possibly some obligations outstanding.

Mr. ANTHONY. Why were the expenditures so much larger in 1920?

Col. HANNAY. That was due to the larger Army during demobilization and the larger personnel necessary for utility purposes and for handling supplies at depots and places like that in the handling of supply work at depots, port terminals, etc.

Gen. ROGERS. And also at the camps.

Mr. ANTHONY. In other words, there was a large number of enlisted men in the Quartermaster Corps during the year that you have not got this year?

Col. HANNAY. Yes, sir.

REDUCTION IN FORCE, QUARTERMASTER CORPS.

Gen. LORD. Since 1920 they have cut out a number of employees?

Col. HANNAY. A great many; yes.

Capt. BARNES. During the fiscal year 1920 we had 80,000 employees, and they were reduced to 34,000, a reduction of 46,000 during the fiscal year.

Mr. CRAMTON. Is a good deal of this work being done now by soldiers which was done at that time by civilians?

Col. HANNAY. The converse is true.

Mr. CRAMTON. How does that explain the size of the item in 1920?

Capt. BARNES. We had 84,000 employees at that time, all told, which were necessary on account of the demobilization, as prior to that we had about 100,000 enlisted men of the Quartermaster Corps who were discharged. The law now provides for only 20,000 enlisted men, and we must replace these enlisted men by civilian employees.

Col. HANNAY. On July 1, 1919, we had a total of 142,327 employees.

Mr. ANTHONY. What date?

Col. HANNAY. July 1, 1919.

Mr. ANTHONY. That was due to the fact that you had a good many of the enlarged activities growing out of the war.

Col. HANNAY. The enlarged activities growing out of the war. That number has been constantly reduced and it is now approximately 34,000, and these estimates which are being presented are for approximately 31,000 men, all told, including all appropriations.

Mr. ANTHONY. Civilians?

Capt. BARNES. Under this particular item there are about 20,000 employees.

FLAGPOLES, CARE OF POST CEMETERIES, SURVEYS, ETC.

Mr. ANTHONY. The first item under incidental expenses is for additional expenditures as are necessary and authorized by law in the movement and operation of the Army and at military posts which are not expressly assigned to any other department, for which you ask \$319,000. The amount allotted last year was \$282,356. What is embraced in that expenditure?

Col. HANNAY. This is for flagpoles, the care of post cemeteries, elevators, for surveys, and setting boundary stones, tuition of officers at technical schools—

Mr. ANTHONY (interposing). Quartermaster Corps officers?

Col. HANNAY. All officers.

TUITION OF OFFICERS.

Mr. ANTHONY. We make appropriations under different branches for the tuition of officers.

Gen. LORD. The comptroller has decided that where there is no special appropriation available that this expense shall be paid out of the appropriation Incidental Expenses.

Mr. ANTHONY. But all the branches are asking specifically in their appropriations for an appropriation for tuition of officers.

Gen. LORD. Many of the services which are interested have no appropriation in the bill out of which that expense can be paid.

Mr. ANTHONY. We do not want to make allowances here for the payment for the tuition of officers and also make a specific appropriation in other parts of the bill for the same purpose. We ought either to make it all here and cut it out of the other places, or else cut it out of this appropriation.

Gen. LORD. Some of the services have specific appropriations, but many of the services have not any appropriations available.

Mr. ANTHONY. What services are those?

Col. HANNAY. I can read here the services for which we are providing tuition in this item. This provides for a total of 163 officers, and those are divided in this way: Infantry, 84; Coast Artillery, 24; Cavalry, 19; Quartermaster Department, 21; Chemical Warfare, 2; Finance, 3; Chaplains, 5; Adjutant General's Department, 2; Judge Advocate General's Department, 2; Inspector General's Department, 1. So we are only providing here for 163 officers at \$225 each.

Mr. ANTHONY. That allowance does not conflict with the allowance made in the appropriation for the other services?

Col. HANNAY. No, sir; it provides for no other services than those enumerated.

Mr. ANTHONY. Where do they want to send the chaplains to school?

Col. HANNAY. I do not know.

Mr. ANTHONY. Where would you want to send a finance officer to school, Gen. Lord?

Gen. LORD. We have not made any allotment, and we have not any officers at such schools to-day. We would send them to either Columbia University, or to Dean Gay, at Harvard, to take courses in expert accounting or to take courses in the study of commercial banking and subjects of that kind.

Mr. ANTHONY. Where would these Infantry officers attend school? I thought the idea of our making an appropriation for the further instruction of commissioned officers would be to confine that largely to the officers in the technical branches of the service.

Gen. LORD. The law was not, as construed, to cover only that. I do not know where the Infantry officers would be sent.

Col. HANNAY. At the present time we are sending two quartermaster officers to the Massachusetts Institute of Technology.

Mr. ANTHONY. The officers of the Quartermaster Corps?

Col. HANNAY. Yes, sir. They are studying specifically gas engine and construction and development in connection with their work in the Quartermaster Corps.

Gen. ROGERS. And also shop management.

Mr. Sisson. How long has it been the policy of the Army to send its officers to school?

Gen. ROGERS. It has never been provided before that their expenses should be paid, but it is of great benefit especially to the organizations which handle gas engines, so far as the Quartermaster Corps is concerned.

Mr. Sisson. On the same theory we might go into the legal department and pay for sending the district attorneys and the judges to school. The judges ought to be educated, and also the district attorneys. It seems to me the same argument can be made for that as for sending Army officers to school. Then you might carry it further and you might say we ought to have a school to which we can send Congressmen.

Mr. ANTHONY. How much of this item are you allowing for tuition?

Col. HANNAY. The amount is \$36,675.

Mr. ANTHONY. What are the other principal expenditures in that item?

Col. HANNAY. The other expenditures are for flagpoles, \$22,000; elevators, \$500; care of post cemeteries, including plants and shrubbery, \$40,000; services, setting boundary stones, \$45,000. The remainder covers miscellaneous things in connection with these activities, such as mail boxes, drafting and surveying instruments, notarial fees, recording deeds, and other small items.

Gen. LORD. Mr. Chairman, there are in the Army appropriation bill two general appropriations for which it is difficult to submit any thing intelligent in the way of a supporting estimate. First, there is the item for contingencies for the Army, to pay expenses in connection with the operation of the executive bureaus themselves, contingencies which may arise which are not provided for, which affect the

War Department and its bureaus only. This other item, which is carried in incidental expenses, is the corresponding general provision made to meet contingencies that occur in connection with the maintenance and operation of troops, for which we can not make a definite estimate. Some new activity arises that is assigned for payment under this particular provision.

Mr. ANTHONY. Take the item for services and boundary stones, is that based upon the Army expenditure last year for that purpose, or is it estimated for upon the basis of what you might do this year?

Gen. LORD. There has been obligated this year \$186,202.10. They are asking, I think, for \$319,000.

Col. HANNAY. This is based on requisitions, and this amount has been the result of a cut to one-fourth of the amount of the requisitions made on the construction service.

DONATION TO DISCHARGED MILITARY PRISONERS.

Mr. ANTHONY. The next item is the provision for the donation of \$10 to discharged military prisoners. Is that estimate based on the amount you actually used during the past year?

Col. HANNAY. That is fixed by the estimate of The Adjutant General of the number of prisoners who will be discharged.

Mr. ANTHONY. How much was used for that purpose in 1920?

Gen. LORD. The amount used in 1920 was \$5,096.26.

Mr. CRAMTON. This estimate of \$40,000 means that there will be 4,000 dishonorably discharged soldiers?

Col. HANNAY. Yes.

Mr. Sisson. You do not expect to have more military prisoners now than you had last year?

Col. HANNAY. Their terms are expiring, and some of the prisoners who were sentenced on charges growing out of the war are just beginning to be discharged.

Mr. CRAMTON. At the expiration of his term of imprisonment every one of those men is given a dishonorable discharge?

Col. HANNAY. Yes; and each man is given \$10 to give him a pitance to start life again.

NUMBER OF MILITARY PRISONERS.

Mr. DENT. How many military prisoners are there in all?

Col. HANNAY. Three thousand was the number reported to us.

Col. MARTIN. We had a survey some time ago to determine how many prisoners there would be who would get the advantage of this donation and it showed 2,000.

Mr. DENT. That is separating the purely military offenses from the other offenses?

Mr. Sisson. Minor offenses for which a man got severe punishment might not discharge him from the Army.

Col. MARTIN. These were the serious ones. Of the 2,000, 1,791 had criminal records before they came into the Army.

Mr. ANTHONY. I wish you would put into the record a statement showing the number of prisoners confined in Army institutions and the probable number who will receive their discharge during the next fiscal year.

Col. HANNAY. Yes, sir.

Mr. Sisson. That is easily ascertained?

Col. HANNAY. Yes, sir. This is based on information given by The Adjutant General.

Mr. Sisson. According to the information given to us here, it seems to be 2,000.

(The statement above referred to is as follows:)

Number of prisoners now confined is 3,000. It is estimated that 3,000 will be discharged during the fiscal year 1922.

HIRE OF LABOR, QUARTERMASTER CORPS.

Mr. ANTHONY. Your next item is for hire of labor, Quartermaster Corps, and you are asking for \$6,182,661. You had allotted for that purpose during the current year \$2,373,870. How much has been expended so far?

Gen. LORD. The amount which has been obligated is \$4,425,711.78.

Mr. ANTHONY. So that there is already a deficiency of at least \$2,000,000 in this item?

Gen. LORD. It has been overdrawn that much.

Capt. BARNES. Under that item, in view of the fact that these items can be transferred to incidental expenses from other items, there will be no deficiency.

CREATING DEFICIENCIES.

Mr. ANTHONY. There will be a deficiency in your allotment?

Capt. BARNES. In the total amount.

Mr. CRAMTON. You had allotted for that purpose out of last year's appropriation \$2,373,870. The record shows that there has been expended up to January 4 over \$4,000,000, so on one item in a paragraph for which you had a total appropriation of \$10,000,000 you have already obligated \$11,000,000?

Gen. LORD. That is correct.

Mr. CRAMTON. And you will have at the end of the year a deficiency of \$6,000,000.

Col. HANNAY. Approximately that.

Mr. ANTHONY. While it is not an actual deficiency, it is a deficiency under the heading of incidental expenses, because you have made it up out of other items.

Col. HANNAY. Yes, sir.

Capt. BARNES. Last year our estimate called for \$23,000,000 under incidental expenses for the hire of employees, etc. There was appropriated \$9,000,000. Prior to that, in the fiscal year 1920, we had 80,000 employees, and we reduced that number to 34,000, which was really more than we could stand. Now, on July 1, 1920, we had 34,000 employees at the beginning of the fiscal year, and at the beginning of the last fiscal year we had 26,000 employees, which is considered the minimum with which we can efficiently operate the activities of the Quartermaster Corps.

Mr. CRAMTON. What would happen if at some time when Congress appropriated \$9,000,000 for civilian employees you quit hiring them when you had spent the \$9,000,000 and left the responsibility up to Congress?

Col. HANNAY. The supply of the Army would cease.

Mr. CRAMTON. That responsibility would be on Congress.

Col. HANNAY. There would be an interim before you could train and replace civilians with soldiers to handle the distribution and procurement of supplies at depots, and I think it would be a very dangerous proposition.

Capt. BARNES. I would like to state that in 1917 there was appropriated for employees under this item approximately \$7,000,000. At that time we did not have any of the large activities that we have now. We had 14 general supply depots; to-day we have 21 general supply depots. We had at that time practically 7,000,000 square feet of storage space; to-day we have 50,000,000 square feet.

Mr. ANTHONY. That is because of the consolidation of the activities of the other branches of the service into the Quartermaster Corps.

Capt. BARNES. Yes, sir; and also it is an outgrowth of the war. We have about 50,000,000 square feet of occupied storage, carrying \$1,181,000,000 worth of stores. We must have a force to take care of that, and if Congress cuts that force the stores will deteriorate.

Mr. Sisson. You might take some of the Army officers out of the schools and give them something to do.

Capt. BARNES. At present we can not do that.

Mr. CRAMTON. We are sitting here and debating what we will do with your estimate of \$16,841,906. If we should decide to cut that to \$10,000,000, and Congress should pass the bill with that figure for this item, that does not mean that there will be any reduction whatever in your expenditures in this item under the present system. You simply take \$6,000,000 from some other item in the bill and use it for the purposes of this item, and then you come in and ask for a deficiency of \$75,000,000, and Congress has really not had anything to say about the expenditure. That is my criticism of this system, for which, of course, you are not responsible.

I just wondered what would happen if we did say that the amounts which Congress allowed were the amounts that you were to spend, and when you got through spending that you could quit.

Gen. ROGERS. If you gentlemen would give us the amounts of money we ask for in an honest estimate, and not cut us down and not expect us to come back for a deficiency next year, I think you would get much better results. We try to keep within the amount appropriated. I think if you figure up the amount of expenditures for the year 1921 you will find that the expenditures come very close to the estimates we submitted, after you have taken into consideration the amount you have to appropriate in the supplemental appropriation and the increase in the Army.

Mr. CRAMTON. That demonstrates two propositions: First, that your estimate was honest and you had confidence in it, and you proceeded to spend the money, regardless of what Congress did; and, second, that Congress had really little to say about how much the Army would spend.

Gen. ROGERS. I can show you how much you have cut the estimates, and how we have had to come back for practically the same amount of money.

Mr. Sisson. We ought to have some very severe penal law for taking money out of the Treasury, because if a man steals money that is a crime, and it ought to be a crime to create deficiencies. The very

statement you make is the mental attitude of nearly every department of this Government, and that is "If you give us what we ask for we would not ask for a deficiency." That does not always follow, but if you give everybody what they ask for and what they think they ought to have—and I do not blame them for thinking so, because they would not be worth much if they did not want to get all they could for their department—but if we give everybody what they want there would not be anything left. It would absorb all the property there is in the United States. It is only by the severest and the most intense row all the time with the appropriation committees that we are able to keep expenses down at all.

There are some people for whom this Government is conducted; it is not conducted for Congressmen, it is not conducted for the benefit of any officials of the Government, and it is not conducted for the benefit of the Army. The fact is that all its business is for the benefit of the people, and those are the only people who get no consideration around the tables of Congress, the people who pay the taxes.

Mr. CRAMTON. I think a change in the form of the bill along the lines you have suggested would help a great deal, because it would enable Congress more intelligently to indicate where it did want the money spent.

Mr. Sisson. And it would help you to comply with the requirements of Congress. As it is now you do not know what Congress wants you to do when it reduces an item.

Col. HANNAY. I would like to say in connection with these deficiencies that they cover constants solely, that have been created in coal and food and things like that, for which deficiencies are authorized in the law.

Mr. CRAMTON. Under the present construction of the bill you can switch from one item to another, and so you do switch, and finally you get it from one of the constants where you must come in and ask for a deficiency.

Col. HANNAY. We have not switched to cover employees with coal money and created deficiencies in coal. We have reduced the activities in other variables to cover these, and the deficiencies we will submit will be actual deficiencies for lawful deficiency purposes in constants like fuel and food and transportation.

Mr. CRAMTON. There is nothing to prevent your switching some of the expenditure of the constants like coal over to one of these variables instead of taking the money for one variable in the expenditures for another variable. As I understand it, you switch the variables around but take the constants entirely out of the deficiency.

Col. HANNAY. That would appear——

Mr. CRAMTON (interposing). Of course, that is only superficial information on my part.

Col. HANNAY. If we were to use, for instance, coal money for incidental expenses, it would appear so, but we have not done that. We will submit no deficiency for incidental expenses covering personnel, because we have not used coal money for that purpose.

Mr. CRAMTON. You have used some other variable.

Col. HANNAY. Yes; so the deficiency will be an actual deficiency that would exist under any system as long as the law requires us to furnish food, fuel, quarters, and transportation for an army which Congress authorizes.

Mr. CRAMTON. Has any attempt been made to take from a variable the necessary money to make up for the necessities of any of the constants?

Col. HANNAY. No, sir.

Mr. ANTHONY. The real facts are, Colonel, that Congress creates by law certain activities in the Army——

Col. HANNAY. Yes, sir.

Mr. ANTHONY. And then arbitrarily refuses to appropriate enough money in the appropriation bill to carry on the activities in a great many cases?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. And under the law you create a deficiency?

Col. HANNAY. We create a deficiency; yes, sir.

Gen. ROGERS. A good example would be the question of subsistence, about as plain as any. When we ask for so much money for the subsistence of the Army, and you gentlemen think it wise to cut that money, of course, after you have prescribed the amount of money that should be given each man for his rations, we have to feed that man whether we have the money or not, and if along toward the end of the year we run short of subsistence money we have to feed the Army just the same.

Col. HANNAY. Those are the only items that we come up and submit deficiencies for.

HIRE OF INTERPRETERS, SPIES, AND GUIDES.

Mr. ANTHONY. Well, under the item of interpreters, spies, and guides, you are asking for \$49,000?

Capt. BARNES. Yes, sir; that is based upon an estimate submitted by the Intelligence Division of the General Staff.

Mr. ANTHONY. The Quartermaster Department pays for all of these activities, does it?

Capt. BARNES. Yes, sir.

Mr. ANTHONY. What interpreters are there that you pay for; who are they?

Capt. BARNES. In the offices of the military attachés all over the world and on the Mexican border they have interpreters, and their salary ranges from about \$420 to \$2,400 per annum.

Mr. ANTHONY. This is really an item that properly could be charged to military intelligence, is it not?

Col. HANNAY. Yes, sir; but as I understand it it has been in incidental expenses for many years.

Gen. LORD. An allotment is made to the Military Intelligence Division of the General Staff by the Quartermaster General.

Gen. ROGERS. Yes.

Mr. ANTHONY. But in the appropriation that we make for military intelligence they would be authorized to use some of that money for this very purpose, would they not?

Gen. LORD. I think so, without any change in the phraseology.

Mr. ANTHONY. Why would it not be better to put it in in one place?

Gen. LORD. This is the only provision for spies and guides. It is an old provision of the law, but I think you can pay them as you pay other employees.

Mr. Sisson. I suppose this was carried before the so-called Bureau of Intelligence was created?

Gen. LORD. Yes, indeed.

Mr. Sisson. This was the only place, and it just drags along here, and it ought to be placed in its proper place now and ought to be taken out of here and put with the Intelligence Bureau.

Gen. ROGERS. I think it would be as well.

Gen. LORD. I think that all the activities of the Military Intelligence should be covered under that appropriation.

Mr. ANTHONY. The language of the provision for military intelligence allows the appropriation to be used for contingent expenses for the Military Establishment, so that they could duplicate or treble this appropriation we make for spies or interpreters here out of this other appropriation if they saw fit.

Gen. LORD. Unless this language is changed. If this language is retained in the bill it prohibits it, because it is consistently held by the accounting official of the Treasury that a specific appropriation, a specific enumeration of that character, calls for payment out of the identical appropriation.

Mr. ANTHONY. But if we drop out this item from the bill they could still pay, without the duplication, out of the general appropriation.

Gen. LORD. I think we could. That language in regard to spies and interpreters has been carried in the bill since September 28, 1915.

Mr. ANTHONY. We could do that by a provision, if we wanted to keep track of the expenditures for interpreters, spies, and guides; we could secure it by a limitation in the language.

Mr. Sisson. That would be a better appropriation.

Gen. LORD. Except that you would then prohibit other branches of the service from hiring guides unless they pertain to the military intelligence.

Gen. ROGERS. It was quite an advantage to have this appropriation during the war. We used a large amount of money under this head. We could not have used it if it had not been worded this way.

Mr. CRAMTON. How was the money spent this current year?

Gen. LORD. \$41,475 was obligated.

Mr. CRAMTON. Have you a statement showing, roughly, as to how these items for interpreters, spies, and guides were spent?

Mr. ANTHONY. Will you put that in the record?

Statement of funds apportioned under the item 0104.105, interpreters, spies, and guides, for the fiscal year 1921—Incidental expenses.

Place.	Amount.	Place.	Amount.
Eighth Corps Area.....	\$22,000	Spain.....	\$1,000
Ninth Corps Area.....	15,000	Sweden.....	1,000
China.....	1,000	Germany.....	1,000
Cuba.....	1,000	Switzerland.....	2,000
England.....	2,000	Finland.....	2,000
Norway.....	2,000	Canal Zone.....	2,000
Mexico.....	3,000		
Poland.....	3,000	Total.....	\$41,475

Mr. Sisson. I do not know that they have items of that sort, or whether it is sort of confidential.

Mr. ANTHONY. They will know how much money they spent for interpreters, spies, and guides.

COMPENSATION OF CLERKS AND OTHER EMPLOYEES.

"Compensation of clerks and other employees of the Quartermaster Corps, \$8,489,638," and there was allotted out of the current year's appropriation \$4,400,000. How much is expended or authorized so far?

Gen. LORD. \$6,683,787.83.

Mr. ANTHONY. What will the amount of the total expenditures be at the end of the present fiscal year for this purpose?

Capt. BARNES. About \$3,000,000 more.

Mr. ANTHONY. So you are asking here for less than you will actually spend during the current year?

Capt. BARNES. Yes, sir; because there will be a reduction made in the clerical force from the period of March 31 to June 30 of this year.

Mr. ANTHONY. I understand it is also the contention of the Quartermaster Corps that since other branches of activities have been added to the Quartermaster Corps an insufficient number of clerks have been provided to carry on those activities?

Gen. ROGERS. Yes; in the city of Washington.

Mr. ANTHONY. Only in the city of Washington?

Gen. ROGERS. Yes, sir.

Mr. ANTHONY. Are the clerks provided here, any of them, in the city of Washington?

Capt. BARNES. No, sir; only our Washington depot here.

Gen. ROGERS. They come under the legislative, executive, and judicial bill.

Col. HANNAY. This is entirely for the field force, etc.

CLERKS, ETC., QUARTERMASTER CORPS, AND CLERKS, FOREMEN, GUARDS, ETC., AT DISCIPLINARY BARRACKS.

Mr. ANTHONY. Clerks for post quartermasters and military posts, and for overseers for general prisoners at posts designated by the War Department for the confinement of general prisoners, and for the United States Disciplinary Barracks guards, \$29,000.

Mr. Sisson. First, let me ask one question about the clerks: In order that the record will show what character of work is done by these clerks, will you put that in?

Gen. ROGERS. In the field forces?

Mr. Sisson. Yes.

Gen. ROGERS. Clerks at corps headquarters and at depots and clerks at Army posts and stations and at port terminals.

Mr. Sisson. Do those have to deal with all that property—that hang over from the war?

Gen. ROGERS. Yes, sir; in addition to their regular work.

Capt. BARNES. In connection with the storage, issue, distribution, and purchase of quartermaster supplies.

Mr. Sisson. And it is necessary for those clerks to keep the record of the sale and distribution of this hangover from the war?

Gen. ROGERS. Yes, sir.

Mr. Sisson. And keep track of the property that may be declared to be a part of the reserve of the Army and not to be disposed of?

Gen. ROGERS. Yes, sir.

Mr. ANTHONY. Who are the other employees besides Government clerks in this big item here of \$8,000,000?

Capt. BARNES. They consist of watchmen, guards, accountants, blacksmiths, carpenters, and practically all tradesmen.

Mr. ANTHONY. Now, in a previous item you say hire of labor, Quartermaster Corps, you are asking for \$6,000,000. Do not the two items conflict?

Capt. BARNES. No, sir. Watchmen, inspectors, trainers, accountants, blacksmiths, operators, mechanics, etc.

Mr. ANTHONY. You do not classify them as laborers?

Capt. BARNES. No; we do not classify them as laborers. As a rule they have a classified status under the civil service law.

Mr. Sisson. What salaries do you pay, the amount of salary?

Capt. BARNES. They range anywhere from \$600 to \$2,400.

Mr. Sisson. Is \$2,400 the maximum salary paid out of the \$6,000,000?

Capt. BARNES. \$2,500 is the pay of chief clerks at the large depots.

Mr. ANTHONY. I wish you would classify all clerks and employees that are to be paid out of this \$6,000,000 item, the number of clerks and the number of other employees.

Capt. BARNES. I have it right here. I can insert it in the record.

Mr. ANTHONY. We want it for the record; yes. Also in the item under the head of labor, if you can classify that labor too.

Capt. BARNES. Yes, sir.

(The statements referred to follow:)

The following data is based on an Army strength of 17,000 officers and 175,000 enlisted men.

Hire of labor. Quartermaster Corps, 1922.

Number.	Designation.	Salary.	Total
125	Foremen.....	\$1,000	\$200,000
1,000	Laborers.....	1,200	1,200,000
1,400	Laborers.....	1,100	1,540,000
3,603	Laborers.....	240-900	3,212,461
7,128	Total.....		6,152,461

This estimate covers laborers of all grades employed in warehouses, at depots, posts, camps, and stations required in the operation of the Quartermaster Corps in the United States, Philippine Islands, Hawaii, Canal Zone, and in Europe, in the receipt, handling, storage, and distribution of supplies.

Hire of clerks, foremen, and organist. United States Disciplinary Barracks, 1922

Number.	Designation.	Salary.	Total
1	Clerk.....	\$1,000	\$1,000
3	Clerks.....	1,200	3,600
16	Foremen.....	1,300-1,200	24,000
1	Organist.....	104	104
21	Total.....		29,304

The above estimate covers the employment of 4 civilian clerks at the United States Disciplinary Barracks, Fort Leavenworth, Kans.; also the employment of 16 foremen at \$1,500 each, in connection with the prison shops at Fort Leavenworth Disciplinary Barracks. The item \$104 covers the hire of an organist at the Disciplinary Barracks for 52 Sundays at \$2 per Sunday.

Hire of clerks, Quartermaster Corps, 1922.

Number.	Designation.	Salary.	Total.
20	Chief clerks.....	\$2,500	\$50,000
60	Clerks, supervising.....	2,250	135,000
75	.....do.....	2,000	150,000
375	Clerks, class 1.....	1,800	675,000
350	Clerks, class 3.....	1,600	560,000
900	Clerks, class 2.....	1,400	1,260,000
1,893	Clerks, class 1.....	1,200	2,271,600
3,673	Total.....		5,101,600

This estimate covers clerks of all grades required in the operation of the Quartermaster Corps at corps area headquarters, supply depots, general supply depots, posts, camps, and stations in the United States, Hawaii, Philippine Islands, and Germany, and in addition thereto includes the pay of 182 field clerks, Quartermaster Corps, amounting to—

Hire of other employees, Quartermaster Corps, 1922.

Number.	Designation.	Salary.	Total.
30	Accountants.....	\$2,500	\$75,000
40	Blacksmiths.....	1,400	56,000
131	Carpenters.....	1,400	183,400
743	Checkers.....	900	668,274
6	Cooks.....	1,200	7,200
10	Experts (chemists, etc.).....	2,000	20,000
15	Hostlers.....	1,000	15,000
15	Inspectors, chief.....	2,250	33,750
10	Inspectors, subchief.....	2,000	20,000
54	Inspectors, substitute.....	1,500	81,000
314	Inspectors.....	1,400	439,000
87	Inspectors, miscellaneous substitute.....	1,400	121,800
175	Inspectors.....	1,200	210,000
146	Janitors.....	900	131,400
220	Mechanics.....	1,500	330,000
66	Messengers.....	900	59,400
270	.....do.....	840	226,800
70	Operators.....	840	58,800
6	Range riders.....	1,200	7,200
6	Range riders, assistants.....	900	6,114
		1,000	
15	Technical assistants (buyers).....	2,500	37,500
4	Trainers, chief.....	1,500	6,000
35	Trainers.....	1,000	35,000
15	Watchmen, chief.....	1,500	22,500
185	Watchmen.....	1,000	185,000
391	.....do.....	900	351,900
3,059	Total.....		3,388,038

This estimate covers employees other than clerks and laborers and includes employees required in the operation of the Quartermaster Corps at corps area headquarters, supply depots, general supply depots, posts, camps, and stations in the United States, Hawaii, Philippine Islands, and Germany.

Mr. ANTHONY. Then to return to this item for the disciplinary barracks. How many of these institutions are there in the Army?

Capt. BARNES. Three—Alcatraz, Calif.; Fort Jay, N. Y.; and Fort Leavenworth, Kans.

Mr. ANTHONY. Is the appropriation for the next year based upon the expenditures for the current year?

Capt. BARNES. Yes, sir; based upon the present expenditures.

Mr. ANTHONY. Do you have an organist at each one of these institutions?

Capt. BARNES. Just at Leavenworth on Sunday, 52 Sundays, \$2 per Sunday.

Mr. ANTHONY. All the foremen employed are civilians?

Capt. BARNES. Yes, sir.

RECRUITING EXPENSES.

Mr. ANTHONY. Recruiting expenses, not including lodgings, \$482,000. What do you base that on?

Col. HANNAY. Col. Martin, will you explain that?

SATURDAY, JANUARY 8, 1921.

TRANSPORTATION OF THE ARMY AND ITS SUPPLIES.

STATEMENT OF BRIG. GEN. W. D. CONNOR.

Mr. ANTHONY. We will take up the paragraph headed "Transportation of the Army and its supplies."

Col. HANNAY. Gen. Connor, Chief of Transportation Service, Quartermaster General's Office will handle that.

Mr. ANTHONY. Gen. Connor, you are Chief of the Transportation Division of the Quartermaster General's Department?

Gen. CONNOR. Yes, sir.

Mr. ANTHONY. I see that you are asking for a total of \$63,000,000 for the next fiscal year for the transportation of the Army and its supplies. In 1921 there was appropriated \$40,000,000 for this purpose. Can you tell us how much was allotted for the current fiscal year for this purpose?

Gen. CONNOR. There was approximately \$40,000,000 allotted through the fiscal year with an additional \$500,000 made available out of the reserve; \$40,500,000.

Mr. ANTHONY. How much are you going to spend for that purpose during the current fiscal year?

Gen. CONNOR. If operations continue the way they are to-day the amounts expended under the items of transportation will be approximately \$44,000,000 in excess of the amount apportioned.

Mr. ANTHONY. \$44,000,000 in excess?

Gen. CONNOR. Approximately that.

Mr. ANTHONY. Making a total of \$84,000,000?

Gen. CONNOR. \$85,000,000.

Mr. ANTHONY. Now, is this item of \$63,000,000 estimated for the next fiscal year based upon an Army of 280,000?

Gen. CONNOR. The original estimate as submitted was based on an Army of 297,000 men; I believe that was the total.

Mr. ANTHONY. Total officers and men?

Gen. CONNOR. Total officers and men, and the amount as submitted according to the best data we have in the transportation service was for approximately \$123,000,000. That was not approved.

and we were instructed to make our estimates based on approximately \$63,000,000, and we divided that up where we thought it was most needed, but I am morally certain that the amount will not be sufficient.

Mr. ANTHONY. Was this final figure of \$63,000,000 on an Army of 280,000 men or is it the reduced figure for an Army of 175,000 men?

Gen. CONNOR. Neither, sir; it is a reduced figure that was sent to us. We submitted our estimates, and it was sent back with the word that the estimates would be only submitted for approximately this amount.

Mr. ANTHONY. Where did they make this big cut of approximately 100 per cent from your individual estimates?

Gen. CONNOR. It was made in the War Department. I do not know by what agency.

Mr. ANTHONY. Do you know what items were cut?

Gen. CONNOR. No, sir; the lump sum was cut, and we were given a lump sum to figure on.

Mr. ANTHONY. And you have apportioned that lump sum?

Gen. CONNOR. Apportioned it through the items, cutting out the items which we thought could best be spared.

Mr. ANTHONY. Now, I see you have divided the transportation paragraphs under two heads. The first seems to be——

Gen. CONNOR. Four headings.

Transportation of the Army and its supplies.

Item No.	Name of item.	Apportioned, fiscal year 1921.	Estimates, fiscal year 1922.		
			150,000 men.	175,000 men.	280,000 men.
ANIMAL TRANSPORT DIVISION.					
0115. 106	Teamsters, hire of.....	\$148,571. 00	\$771,428. 57	\$900,000. 00	\$600,000. 00
0116. 106	Other employees, in connection with, hire of.....	625,714. 00	1,285,714. 29	1,500,000. 00	609,100. 00
1501. 106	Draft and pack animals, hire of.....	4,286. 00	3,673. 72	4,286. 00	8,000. 00
1507. 106	Draft and pack animals, purchase of, and incidental expenses.....	854,396. 00	920,832. 00	1,074,304. 00	3,074,304. 00
1509. 106	Animal-drawn vehicles and spare parts, purchase of.....	107,150. 00	85,714. 29	100,000. 00	140,779. 78
1510. 106	Harness and horse equipment, purchase of.....				50,000. 00
1511. 106	Repairs and maintenance of animal-drawn vehicles and harness.....	57,143. 00	107,142. 86	125,000. 00	125,000. 00
1512. 106	Packing and handling of animal-drawn vehicles and harness.....	7,533. 00	6,456. 86	7,533. 00	15,000. 00
Total, Animal Transport Division.....		1,804,793. 00	3,180,962. 59	3,711,123. 00	4,622,183. 73
WATER TRANSPORT DIVISION.					
Army transports.					
0122. 106	Employees, hire of.....	2,913,311. 00	3,333,152. 00	3,333,152. 00	3,333,152. 00
1701. 106	Fuel.....	5,621,232. 00	6,876,925. 00	6,876,925. 00	6,876,925. 00
1702. 106	Deck, engine, and stewards' supplies.....	446,334. 00	708,000. 00	708,000. 00	708,000. 00
1703. 106	Water.....	28,314. 00	36,078. 00	36,078. 00	36,078. 00
1704. 106	Laundry.....	61,950. 00	67,920. 00	67,920. 00	67,920. 00
1705. 106	Pilotage.....	51,293. 00	42,835. 00	42,835. 00	42,835. 00
1706. 106	Stevedoring.....	245,000. 00	742,800. 00	742,800. 00	742,800. 00
1707. 106	Removing ashes.....	1,196. 00	4,965. 00	4,965. 00	4,965. 00
1708. 106	Painting and cleaning.....	55,800. 00	52,725. 00	52,725. 00	52,725. 00
1709. 106	Miscellaneous shore expenses.....	336,430. 00	341,450. 00	341,450. 00	311,450. 00
1710. 106	Towage.....	18,214. 00	20,545. 00	20,545. 00	20,545. 00
1711. 106	Repairs.....	1,045,750. 00	2,455,550. 00	2,455,550. 00	2,455,550. 00
1731. 106	Purchase and construction.....				
Total, Army transports.....		10,824,824. 00	14,682,945. 00	14,682,945. 00	14,682,945. 00
1712. 106	Wharfage, rental of.....	50,473. 00	167,654. 00	167,654. 00	167,654. 00

Transportation of the Army and its supplies—Continued.

Item No.	Name of item.	Apportioned, fiscal year 1921.	Estimates, fiscal year 1922.		
			150,000 men.	175,000 men.	200,000 men.
WATER TRANSPORT DIVISION—contd.					
River and harbor boats.					
0124. 106	Employees, hire of.....	\$965,971.00	\$1,512,331.00	\$1,512,331.00	\$1,512,331.00
1718. 106	Repairs.....	163,179.00	454,040.00	454,040.00	454,040.00
1719. 106	Fuel.....	189,982.00	357,350.00	357,350.00	357,350.00
1720. 106	Supplies.....	73,893.00	250,205.00	250,205.00	250,205.00
1721. 106	Water.....	3,125.00	12,650.00	12,650.00	12,650.00
1722. 106	Hire of substitute boats.....	35,713.00	65,000.00	65,000.00	65,000.00
1723. 106	Miscellaneous expenses.....	255,357.00	407,300.00	407,300.00	407,300.00
Total, river and harbor boats..		1,567,220.00	3,058,876.00	3,058,876.00	3,058,876.00
Coast Artillery boats.					
0125. 106	Employees, hire of.....	989,619.00	1,657,468.64	1,657,468.64	1,657,468.64
1724. 106	Purchase and construction.....	228,571.00	.....	.....	.....
1725. 106	Fuel.....	378,785.00	776,850.00	776,850.00	776,850.00
1726. 106	Supplies.....	108,179.00	306,970.00	306,970.00	306,970.00
1727. 106	Repairs.....	234,266.00	593,950.00	593,950.00	593,950.00
1728. 106	Water.....	5,268.00	8,795.00	8,795.00	8,795.00
1729. 106	Hire of substitute boats.....	35,714.00	55,000.00	55,000.00	55,000.00
1730. 106	Miscellaneous expenses.....	260,714.00	318,050.00	318,050.00	318,050.00
Total, Coast Artillery boats...		2,221,137.00	3,717,063.64	3,717,063.64	3,717,063.64
Total, water transportation division ¹		14,683,654.00	21,626,558.64	21,626,558.64	31,626,558.64
RAIL TRANSPORT DIVISION.					
0119. 106	Employees, hire of.....	482,143.00	1,081,200.00	1,216,300.00	1,351,511.00
0120. 106	Dock laborers, hire of.....	35,714.00	471,732.00	530,710.00	589,677.00
0121. 106	Miscellaneous laborers, hire of.....	53,571.00	26,818.00	30,170.00	33,522.00
0126. 106	Reimbursement of travel expenses, civilian employees.....	46,500.00	80,355.00	104,248.00	106,907.00
0127. 106	Reimbursement of travel expenses, cadets, U. S. Military Academy....	7,143.00	15,000.00	15,000.00	15,000.00
0128. 106	Travel allowances to discharged officers and enlisted men.....	2,003,571.00	3,558,500.00	4,268,250.00	7,317,000.00
1122. 106	Railroad equipment, purchase of....	17,857.00	25,000.00	25,000.00	30,000.00
1123. 106	Railroad equipment, repairs, operation, and maintenance.....	1,428,571.00	750,000.00	750,000.00	1,500,000.00
1801. 106	Troops, changing station, transportation of.....	1,667,500.00	2,751,070.00	3,205,080.00	5,111,920.00
1802. 106	Applicants for enlistment and recruits, transportation of.....	1,195,714.00	2,229,536.00	3,321,196.00	4,732,444.00
1803. 106	Recruiting parties, transportation of.....	32,500.00	52,845.00	61,653.00	98,640.00
1804. 106	Impedimenta of organizations and property accompanying troops changing stations, transportation of.....	269,280.00	574,980.00	670,810.00	1,073,340.00
1805. 106	Public animals with troops changing stations, transportation of.....	204,600.00	349,500.00	407,750.00	652,400.00
1806. 106	Horses of officers changing stations, transportation of.....	62,113.00	106,095.00	123,778.00	198,040.00
1807. 106	Baggage of officers, transportation of.....	179,480.00	287,415.00	335,318.00	526,117.00
1808. 106	Baggage of enlisted men, transportation of.....	29,803.00	47,835.00	56,808.00	89,270.00
1809. 106	Baggage of civilian employees, transportation of.....	6,790.00	10,860.00	12,670.00	20,280.00
1810. 106	Dishonorably discharged soldiers and insane persons, transportation of.....	274,200.00	154,656.00	154,656.00	309,311.00
1811. 106	Agents and employees of the Army, transportation of.....	154,660.00	236,940.00	276,430.00	442,294.00
1812. 106	Street car tickets, tolls and ferriages, payment of.....	107,143.00	139,275.00	162,488.00	269,087.00
1815. 106	Dependents of officers and noncommissioned officers upon change of stations, transportation of.....	.....	736,804.00	736,804.00	1,273,485.00
1901. 106	Clothing and equipage, transportation of.....	290,775.00	496,770.00	579,565.00	925,285.00

¹ Water Transport Division: (a) The Army Transport Service is maintained for the purpose of transporting and supplying overseas troops and no reduction can be made, corresponding to a reduction in the strength of the Army, unless a reduction is made in the number of overseas stations. (b) The river and harbor and Coast Artillery boats are maintained for the purpose of supplying outlying stations and the requirements are governed by the number of stations rather than by the number of troops.

Transportation of the Army and its supplies—Continued.

Item No.	Name of item.	Apportioned, fiscal year 1921.	Estimates, fiscal year 1922.		
			150,000 men.	175,000 men.	280,000 men.
RAIL TRANSPORT DIVISION—contd.					
1902.106	Other Quartermaster stores, transportation of.....	\$1,473,467.00	\$1,984,185.00	\$2,314,883.00	\$3,703,829.00
1903.106	Subsistence stores, transportation of.....	465,000.00	816,255.00	952,298.00	1,523,682.00
1904.106	Horses for Cavalry, Artillery, Engineers, etc., transportation of.....	77,350.00	133,185.00	155,383.00	246,623.00
1905.106	Draft and pack animals, from place of purchase, transportation of.....	22,813.00	38,910.00	45,395.00	72,642.00
1907.106	Horse equipment, transportation of.....	12,750.00	27,210.00	31,745.00	50,819.00
1908.106	Ordnance, ordnance stores, and small arms, transportation of.....	3,134,508.00	5,000,000.00	5,000,000.00	5,500,000.00
1909.106	Signal Corps stores, transportation of.....	83,988.00	214,275.00	239,988.00	400,000.00
1910.106	Engineer Corps supplies, transportation of.....	69,650.00	118,980.00	138,810.00	222,110.00
1911.106	Medical Department supplies, transportation of.....	64,313.00	109,845.00	128,153.00	205,071.00
1912.106	Aviation Service supplies, transportation of.....	249,047.00	160,710.00	187,945.00	300,000.00
1915.106	Tank Corps supplies, transportation of.....	31,250.00	26,775.00	31,238.00	50,000.00
1916.106	Chemical Warfare supplies, transportation of.....	7,143.00	26,775.00	31,238.00	50,000.00
1917.106	Funds of the Army, transportation of.....	8,815.00	12,600.00	14,700.00	23,676.00
1918.106	Drayage, cartage, and hauling at posts.....	16,666.00	17,500.00	17,500.00	35,000.00
1919.106	Drayage, cartage, and hauling at depot.....	13,890.00	12,500.00	12,500.00	25,000.00
1920.106	Drayage, cartage, and hauling at arsenals and armories.....	6,666.00	6,000.00	6,000.00	12,000.00
1922.106	Drayage, cartage, and hauling in the field.....	2,778.00	2,500.00	2,500.00	5,000.00
1923.106	Packing and crating supplies and baggage.....	587,454.00	625,000.00	669,630.00	1,250,000.00
1924.106	Clothing and equipment, enlisted men, transportation of to and from laundries.....		93,750.00	109,375.00	175,000.00
Total, Rail Transport Division.		15,777,174.00	23,719,150.00	27,132,575.00	44,599,369.00
MOTOR TRANSPORT DIVISION.					
0118.106	Civilian employees, hire of.....	2,250,000.00	2,982,000.00	3,479,000.00	4,479,000.00
1218.106	Gasoline, lubricating oil, grease, etc., purchase of.....	1,684,958.50	5,869,638.68	6,847,911.79	15,847,911.79
1601.106	Bicycles, repair of.....	11,225.87	55,149.95	64,341.60	64,341.60
1603.106	Motor cycles, repair of.....	316,305.33	757,907.12	884,224.98	1,884,224.90
1605.106	Motor trucks, hire of.....	1,805.00	8,571.43	10,000.00	10,000.00
1606.106	Automobiles, hire of.....	1,805.00	8,571.43	10,000.00	10,000.00
1607.106	Motor trucks and trailers, repair of.....	2,737,601.75	4,246,439.50	4,954,179.42	9,954,179.40
1609.106	Automobiles, repair of.....	310,870.47	1,340,302.42	1,563,686.16	1,563,686.16
1611.106	Motor transport shops, maintenance and operation.....	419,807.08	850,117.97	991,804.30	1,991,804.30
Total, Motor Transport Division.		7,734,379.00	16,118,698.50	18,805,148.25	35,805,148.15
Total, Transportation of the Army and its supplies.....		40,000,000.00	64,645,369.73	71,275,404.89	106,653,259.52

NOTE.—The amounts shown are estimated by the Chief of Transportation Service as the minimum required for the efficient operation of the Transportation Service. These amounts can not be reduced unless the number of stations to be cared for are reduced.

ANIMAL TRANSPORT DIVISION.

Mr. ANTHONY. Yes. The first head is "Animal Transport Division."

Gen. CONNOR. Yes, sir.

Mr. ANTHONY. Do you desire to take that up first?

Gen. CONNOR. That is the order it would be best to take it up; in the order as prepared.

Mr. ANTHONY. What are the four divisions?

Gen. CONNOR. Animal drawn, water, rail, and motor transport divisions.

DEFICIENCIES.

Mr. SLEMP. General, will you pardon a question before you start in with that. You created a deficit in this fiscal year up to \$45,000,000 in your department?

Gen. CONNOR. Have not yet, but will.

Mr. SLEMP. Have or will?

Gen. CONNOR. At present we still have somewhere in the neighborhood of \$7,000,000 or \$8,000,000 available for transportation, so that no deficit has as yet been created. But at the end of the calendar year 1920, I struck a balance of the funds that had been allotted to the service, and there remained a balance of approximately \$9,300,000.

Mr. SLEMP. That is all you have got to run your bureau for the next six months?

Gen. CONNOR. Yes. At the same time I went into the question of how much our outstanding liabilities were, to get some idea of how we stood at the end of the year, and I found that under the items which pertain to rail transportation of the Army proper, and its supplies, not technically, but really the transportation, that there were liabilities known to exist in the office of the chief of finance of approximately \$15,200,000, for the first five months of the fiscal year. Prorate that for six months and it gives us about \$18,300,000 of liabilities for the first six months.

Mr. SLEMP. For which you have discharged some \$9,000,000.

Gen. CONNOR. Yes.

Mr. SLEMP. Leaving you running behind January 1 about \$9,000,000?

Gen. CONNOR. Plus the additional amount which I have been informed has been expended for fuel——

Mr. SLEMP. That would not come under this?

Gen. CONNOR. Yes; additional of \$4,723,000 for coal, and fuel, oil, and \$1,941,000 for gasoline and oils.

Mr. SLEMP. Now General, have you yourself in your position any discretion in regard to the way you manage your department by which you could arbitrarily add on more expense or arbitrarily cut off expense, or do you receive directions in some way which you have got to act upon and in acting upon that you incur certain expense? I suppose this will be brought out in the deficiency bill?

Gen. CONNOR. In general terms we perform the functions that are prescribed for us, and only to a limited extent—I may say to a very limited extent—do we have any means of saying what the expenditures shall be. We control it in a certain way—and when I say “we” I mean the agencies under the Quartermaster General, naturally—control it in a certain way in amount of allotments that we make, and those are those mainly pertaining to employment, and for the year, where it has been possible, we have made decreases in personnel. In August instructions were sent out decreasing the personnel in the animal-drawn and rail sections.

Mr. SLEMP. In making your allotment of \$40,000,000 you have allotted to the rail transportation the sum of \$15,770,000?

Gen. CONNOR. Yes.

Mr. SLEMP. Now why did you exceed that?

Gen. CONNOR. That is something over which we have no control at all. The orders for the movement of troops originate elsewhere in the War Department, the movement of freight supplies of all kinds originate under orders coming from entirely different sources over which we have no control whatsoever, and they are governed by policies laid down and orders issued, and we simply carry out the orders and pay the bills when they come in.

Mr. SLEMP. Is that same thing true with reference to the various subdivisions?

Gen. CONNOR. That is practically true with reference to all the items.

Mr. SLEMP. You have an order to transport troops from one place to another and you transport them and pay the bills?

Mr. ANTHONY. According to that your bureau would be practically operated by the General Staff?

Gen. CONNOR. No; hardly that. They prescribe the movements that are to go on, and we carry out the function of transportation under it and pay for it as an agency of transportation.

Mr. ANTHONY. Well, now, there was appropriated for transportation for the present year \$40,000,000. You say there was allotted to you about \$85,000,000?

Gen. CONNOR. No; I said if the movements occur, if the present rate of expenditure is maintained throughout the fiscal year as at present that it would require approximately \$85,000,000.

Mr. ANTHONY. Now it was plainly the intention of Congress that the process of transportation should not cost more than \$40,000,000 for the year. What efforts were made by you or by your division to hold the expenditures within \$40,000,000?

Gen. CONNOR. So far as we have anything to do with it—that is, in the hiring of personnel and the allotments for that purpose—we directed that cuts should be made. For instance, in August we directed that a cut of 33½ per cent be made on civilian personnel of animal drawn and rail transportation. On the water transportation we made a cut of 25 per cent, at the end of October. That is about the extent to which we can make any reduction in the expenses.

Mr. SLEMP. General, who is going to decide, assuming that Congress this year appropriates a certain sum of money, who is going to assume the responsibility of guaranteeing to Congress that they will not go beyond that? You are shifting responsibility—I do not mean it in an improper sense—but the responsibility is not yours?

Gen. CONNOR. No, sir.

Mr. SLEMP. Whose is it?

Gen. CONNOR. It would rest with the policies adopted by the Secretary of War and the Chief of Staff, naturally.

Mr. ANTHONY. Now, your department is one of the departments of the Quartermaster General?

Gen. CONNOR. Yes, sir.

Mr. ANTHONY. Do you receive orders from him directing the operations of your particular bureau or do they come direct from other offices in the War Department?

Gen. CONNOR. So far as orders that come to us they always come through the Quartermaster General, but movements of the troops like that do not come to the Quartermaster General. Those are ordered direct to the commanding officers of the areas involved who

are directed to transfer troops from such and such a place to such and such a place.

Mr. ANTHONY. About the only option you or the Quartermaster General would have over these expenditures is to merely provide the machinery for carrying out the objects that are sought to be attained under the orders of the General Staff?

Gen. CONNOR. Yes, that is correct.

Mr. SLEMP. Of course, now, that is not a very large amount of travel, the travel of discharged officers or men, that is only a very small part of the whole.

Mr. ANTHONY. What are you referring to?

Mr. SLEMP. Speaking of the directions to transfer troops from one place to another. It is only about one-twentieth of the entire expense.

Gen. CONNOR. No; but practically all the items are ones over which we have no control at all. It extends even to transportation facilities in posts and stations for, under existing policy of the War Department, the educational training of the troops must not be interfered with, and, therefore, to-day there is nowhere near the amount of soldier labor employed that there used to be at various posts and stations.

Mr. SLEMP. General, whose duty was it to so adjust the activities of your department for the fiscal year as to keep the expenditures within \$40,000,000? Whose duty was it?

Gen. CONNOR. The only person who could do it was naturally the higher authorities. The Secretary of War and the Chief of Staff are the only persons who could give the final word on what the policy would be.

Mr. SLEMP. In your estimate for next year I suppose they submitted a certain policy which acting under would bring about an expenditure of \$63,000,000 for this particular department; I mean for this particular service.

Gen. CONNOR. That must be assumed for we were directed to submit an estimate for \$63,000,000. At the same time we know from the data we have on hand that even an Army of 175,000 or 200,000 men can not be transported under this appropriation of \$63,000,000.

Mr. SLEMP. Well of course I will not admit that that is proven yet.

Mr. ANTHONY. Well, General, of this total amount, this item of \$63,000,000, how much is constant, so-called, and how much is dependent upon the size of the Army? I just want to get it into the record.

Gen. CONNOR. For normal military requirements, \$16,388,525.07 are the constant and nonvariable items, and \$39,625,778.20 are the variable items, dependable upon the size of the Army. In addition thereto there is \$8,074,636 for extraordinary and quasi-military requirements, making a total of \$64,088,939.27.

Mr. ANTHONY. So for an Army of 150,000 we could considerably reduce this estimate of \$63,000,000?

Gen. CONNOR. No; I do not think so, based on the data accumulated before the war on each of the items showing that it cost so many cents or so many dollars to operate during the year, I think the amount stated there, \$64,000,000 will be necessary.

Mr. ANTHONY. How much did you expend for the fiscal year 1921 for transportation?

Gen. LORD. Out of the appropriation for 1920, there was expended \$68,000,000; that is, for transportation of troops.

Mr. ANTHONY. For transportation of the Army and its supplies, \$164,000. Of course, the Army had not been demobilized and that would not be a normal comparison?

Gen. LORD. No, sir.

FOR HIRE OF TEAMSTERS.

Mr. ANTHONY. For hire of teamsters in the animal transport division you are asking \$900,000?

Gen. CONNOR. We expended in the first six months of the year for that item about \$604,000, but there has been a material cut in that, and I figure that with the \$900,000 we can employ the number that will be necessary.

Mr. ANTHONY. Are these civilians?

General CONNOR. Yes, sir; teamsters.

Mr. ANTHONY. Do you hire civilian teamsters at every military post?

Gen. CONNOR. I will say at practically every military post.

Mr. ANTHONY. Do you have soldiers performing any extra duty of that kind?

Gen. CONNOR. To a certain extent; but it is only to be done in case of necessity, where the funds are not sufficient for the employment of civilian employees.

Mr. ANTHONY. You allow the enlisted men extra duty pay when you use them as teamsters?

Gen. CONNOR. I think that the extra duty pay is all cut out now; that is my recollection.

Mr. ANTHONY. Do you prefer to hire civilians to do this work?

Gen. CONNOR. There used to be probably 20 per cent of enlisted force which could be used for extra and special duty. That, of course, was bad for the instruction of the soldiers, but I think more work could be done by the soldiers than is being done now.

Mr. ANTHONY. There is nothing to prevent the use of an enlisted man to drive a team for ordinary post work?

Gen. CONNOR. Except that it would interfere with his training or his vocational school work.

FOR OTHER EMPLOYEES.

Mr. ANTHONY. You want \$1,500,000 for other employees?

Gen. CONNOR. Those are farriers, blacksmiths, wagonmasters, laborers about the corrals, etc. We have approximately 1,500 of them after the reduction has been made.

Mr. SLEMP. What rate of pay is generally given a teamster?

Gen. CONNOR. A teamster gets \$700 and the other civilian employees average at present about \$1,000 a year.

Mr. SLEMP. Are there any incidental advantages?

Gen. CONNOR. Some of them probably get rations.

Mr. ANTHONY. How much money has been expended so far this year for the hire of other employees?

Gen. CONNOR. About \$523,000.

Mr. ANTHONY. On that basis you would use about a million dollars this year?

Gen. CONNOR. Approximately, a million dollars.

Mr. ANTHONY. What is the necessity of \$500,000 more, with a smaller Army?

Gen. CONNOR. Under the reorganization there are going to be nine divisions in the Army areas and in each of those we will have to organize wagon companies and other activities which will involve the use of additional personnel.

Mr. ANTHONY. Is the organization of the Army into the nine tactical areas going to increase the expense?

Gen. CONNOR. That, I do not know.

Mr. ANTHONY. It evidently will if this item is to be increased half a million dollars?

Gen. CONNOR. It must be due to that.

MOTOR AND ANIMAL TRANSPORTATION.

Mr. ANTHONY. You are maintaining animal transportation in the Army and motor transportation. Do these two services duplicate each other in a good many ways?

Gen. CONNOR. I think they do at many posts.

Mr. ANTHONY. Are you making any attempt to get rid of maintaining two sets of transportation?

Gen. CONNOR. There are certain kinds of movement where wagon transportation is much cheaper than motor transportation, for short hauls and over certain kinds of road, animal transportation is a good deal cheaper.

Mr. ANTHONY. Does nearly every military post have both animal and motor transportation?

Gen. CONNOR. Yes, sir.

Mr. ANTHONY. Would it not be better wherever possible to cut out one or the other?

Gen. CONNOR. I would prefer to cut each one down to the minimum.

Mr. ANTHONY. You have not reached the point where you can substitute motor transportation entirely?

Gen. CONNOR. No, sir.

Mr. ANTHONY. Even at an ordinary post?

Gen. CONNOR. No, sir. At many Coast Artillery posts we have recommended that motor transportation be done away with and only animal transportation be allowed.

Mr. ANTHONY. Which is the more expensive method of transportation around the ordinary military post?

Gen. CONNOR. Within a reservation I do not think there is any question but that motor transportation is the more expensive, because it involves short hauls and small loads and time involved in waiting. For that kind of movement and different kinds of freight, motor transportation is considerably more expensive.

Mr. ANTHONY. Wherever you put in motor vehicles you find that the expense mounts up?

Gen. CONNOR. I do not think there is any question about that. I have not any figures, but I had it looked into and there is no question but that for that kind of service motor transport was more costly than animal.

HIRE OF DRAFT AND PACK ANIMALS.

Mr. ANTHONY. You are asking \$31,000 for the hire of draft and pack animals?

Gen. CONNOR. They are used in isolated cases. I remember hiring pack animals in South America where the military attaché, for instance, was making some reconnoissance trip of some kind.

PURCHASE OF DRAFT AND PACK ANIMALS.

Mr. ANTHONY. For the purchase of draft and pack animals, and incidental expenses, you are asking \$1,074,000?

Gen. CONNOR. For the replacement of animals that we have to-day we have approximately 35,000 or 36,000, and will have, say, 30,000 animals on hand by the end of the fiscal year.

Mr. ANTHONY. In your department alone?

Gen. CONNOR. Yes, sir; all the animal-drawn transportation.

Mr. ANTHONY. Not just the transportation department of the Government? It does not include Cavalry and Artillery horses?

Gen. CONNOR. No, sir.

Mr. ANTHONY. Just the quartermaster activities?

Gen. CONNOR. Yes, sir; 30,000 at the end of the year. The casualties are about 10 per cent. This counts on replacing about 3,000 animals and the expense incident to transporting them to the stations.

Mr. ANTHONY. What do you do with that number of animals; how many horses and mules are there?

Gen. CONNOR. In operation to-day there are approximately 6,000 riding animals at posts, etc., 19,800 draft animals, and about 2,600 pack animals.

Mr. ANTHONY. What are the riding animals, Cavalry mounts?

Gen. CONNOR. No; these are not Cavalry horses.

Mr. ANTHONY. Are they at the remount stations?

Gen. CONNOR. They are in actual use. We have some 6,280 riding animals at the remount stations, 12,000 draft, and 1,080 pack animals.

Mr. ANTHONY. Are the remount stations in your bureau?

Gen. CONNOR. In the quartermaster bureau; yes.

Mr. ANTHONY. Not in the transportation bureau?

Gen. CONNOR. No, sir.

Mr. ANTHONY. What is the object of carrying so many horses for riding in the transportation division?

Gen. CONNOR. You mean not issued, in the depots?

Mr. ANTHONY. Yes, sir.

Gen. CONNOR. The divisions are so far below strength at the present time that a great many have not been drawn that would normally be drawn and be with the divisions.

Mr. ANTHONY. Are you maintaining the full number of animals for draft purposes for each of these divisions that would be required to move the division?

Gen. CONNOR. No; only about 80 per cent for an army of 280,000. We have not asked for any to fill out the needs for the new wagon companies that have been organized in the divisions. When we had to make the cut we found that we did not have money enough

to provide the new animals, and I am sure that \$35,000 will not be sufficient to equip all the wagon companies.

Mr. ANTHONY. Is it your plan to completely equip these divisions with animals which would be required to move the divisions?

Gen. CONNOR. I made a recommendation that the number be cut down, but I think that the policy has been in each division there shall be two full wagon companies.

Mr. ANTHONY. Who controls that, the General Staff?

Gen. CONNOR. Yes, sir.

Mr. ANTHONY. If it was a wasteful proposition to equip these divisions with the full strength of animals, your department would have no power to stop it?

Gen. CONNOR. No, sir. We make the presentation. We recommended that it be kept in skeleton form.

Mr. ANTHONY. Have you a real need for 30,000 animals in your animal transportation to-day?

Gen. CONNOR. No, sir; except to give organizations their full equipment of animals.

Mr. ANTHONY. Are these horses all in actual daily use or are they held in reserve?

Gen. CONNOR. They are a part of the equipment of the divisions, and I know from a great many places where I have seen them that they are not being worked to their full capacity.

Mr. ANTHONY. A large number of these animals are mules?

Gen. CONNOR. Yes, sir.

Mr. ANTHONY. About half?

Gen. CONNOR. I should say 31,000 mules and 23,000 horses for tactical organizations. We were only talking about the animals in the transportation department. We have 3,200 draft horses and 17,000 draft mules, or a total of 20,000 draft animals in use, and 12,000 draft animals and 7,000 pack animals in depots.

Mr. ANTHONY. That carries a total of about 46,000 horses and mules?

Gen. CONNOR. Yes, sir; but 20,000 of these do not pertain to transportation service. These horses are for Cavalry and Artillery regiments.

Mr. ANTHONY. It looks to me like you were carrying a great many more mules than there is real necessity to carry in the Army in time of peace. I have heard it said that it is difficult to get Cavalry horses, but it certainly is not difficult to buy mules?

Gen. CONNOR. No; I do not think so.

Mr. ANTHONY. It is rather expensive to carry such a large number of draft animals?

Gen. CONNOR. Yes, sir; the food, the casualties, and the people to take care of them are a big expense.

Mr. ANTHONY. Could not quite a saving be made by cutting down considerably the number of draft animals that are maintained?

Gen. CONNOR. I do not know. There is no question but that in an item like that if we are not going to carry a full 280,000 men, of course it can be decreased.

Mr. ANTHONY. And a considerable saving could be made?

Gen. CONNOR. Yes, sir.

Mr. SLEMP. How many mules, without horses, did you have for the Army in 1916?

Gen. CONNOR. I do not know.

Mr. SLEMP. I am trying to get some idea as to a comparison between what was the peace proposition and what we have now.

Gen. CONNOR. I will put that in the record.

Mr. SLEMP. I should like to know how many mules and animals you had in 1916, corresponding to the 48,000 that you have now, that is, in the calendar year 1916?

Gen. CONNOR. Yes, sir.

(Statement referred to is as follows:)

Animals of Quartermaster Corps for transportation service, 1916, in hands of troops, consisted of 2,842 horses and 27,189 mules; total, 30,031 animals.

Mr. ANTHONY. Under this item purchase of draft and pack animals, how much of the \$1,000,000 do you propose to expend? Is it all for the purchase of new animals?

Gen. CONNOR. It is for replacement animals.

Mr. ANTHONY. To keep them up to the maximum strength of the Army?

Gen. CONNOR. Yes, sir.

Mr. ANTHONY. If we want to reduce the number of draft and pack animals, we can cut down this item?

Gen. CONNOR. Yes, sir.

Mr. ANTHONY. But in order to accomplish our purpose we would probably have to place a limit that no other item was to be used for that purpose?

Gen. CONNOR. Yes, sir; this appropriation is a lump sum, and can be switched one way or the other.

Mr. SLEMP. In the demobilization of various regiments mentioned yesterday did that turn loose a lot of animals that went into your department?

Gen. CONNOR. They would not come to me. They would come to me through the remount service. I get the animals that I want from the depots. When a Field Artillery regiment is motorized I do not know what they do with the horses.

Gen. ROGERS. They are turned into the remount depot.

Gen. CONNOR. I would get them from the remount depot if they were satisfactory for the purpose for which I desired them.

Col. HANNAY. The money appropriated for animals for the present fiscal year has not been used for any other purpose and will be turned back into the Treasury.

Mr. ANTHONY. The amount allotted for that purpose?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Then, why do you ask for more?

Gen. CONNOR. This is for next year, the replacements for next year.

Col. HANNAY. The losses.

PURCHASE OF ANIMAL-DRAWN VEHICLES.

Mr. ANTHONY. You are asking for no money for horses for ammunition trains.

For animal-drawn vehicles and spare parts you are asking \$100,000. Do you want to buy new vehicles?

Gen. CONNOR. There are certain vehicles that we are short of, in spite of the big excess we have of certain other kinds.

Mr. ANTHONY. What class of vehicles are you short of?

Gen. CONNOR. Medical carts, dump wagons, delivery wagons, sleds and sleighs for Alaska, excavator wagons, small wagon trucks, and water wagons. I have them listed here.

Mr. ANTHONY. Have you gone over the list of surplus vehicles to see if you could find any of this stuff?

Gen. CONNOR. We have a list of the entire amount in storage, and this was what was needed to equip the troops in addition to what we have in storage.

Mr. ANTHONY. You have an army of many thousand less?

Gen. CONNOR. It depends upon the number of divisions and the number of posts that exist. The number of men in the army really does not make a great deal of difference.

Mr. ANTHONY. Take delivery wagons, why would not they bear some relation to the number of troops?

Gen. CONNOR. Rather the number of posts, it would depend upon. That is a small item, delivery wagons, 72. The number used would be more dependent upon the number of posts occupied.

Mr. ANTHONY. What is the amount for medical carts?

Gen. CONNOR. \$28,000, and for dump wagons, \$14,160.

Mr. ANTHONY. What do you pay for them?

Gen. CONNOR. About \$240 apiece.

Mr. ANTHONY. What do you pay for medical carts?

Gen. CONNOR. \$200.

HARNESS AND HORSE EQUIPMENT.

Mr. ANTHONY. The next item is harness and horse equipment, and I see that you are asking for no appropriation?

Gen. CONNOR. No, sir; nothing to speak of, I think.

Mr. ANTHONY. Is that because of the fact that you have a great surplus of leather equipment on hand?

Gen. CONNOR. There is plenty of leather equipment. Occasionally we need a collar or harness of special size or some special item, but that is just a minor affair, and there is no necessity felt for estimating for any amount for next year.

Mr. ANTHONY. Were the harness and saddles which came from the war placed in your department?

Gen. CONNOR. No; they are in the storage department. When we need them we draw on the storage department for them. They are kept in the depots and issued as we require them.

Mr. ANTHONY. Did you have anything to do with the recent sale of surplus harness that was made?

Gen. CONNOR. No, sir.

Mr. ANTHONY. Who would have charge of that?

Gen. CONNOR. The surplus property department, if it was serviceable, and the salvage department if it was not.

Mr. ANTHONY. Is the surplus property division a part of the Quartermaster General's office?

Gen. CONNOR. I do not know anything about that.

Mr. ANTHONY. It is under the sales department of the War Department?

Gen. ROGERS. It is a branch of the supply service, the surplus property division of the supply service.

Mr. ANTHONY. Is there anybody here who knows about the harness sale?

Gen. ROGERS. I can tell you the general features.

Mr. ANTHONY. Can you tell us whether the recent sale of surplus harness was recommended by your department?

Gen. ROGERS. No, sir; it was not.

Mr. ANTHONY. Was it the sales bureau of the War Department?

Gen. ROGERS. The Director of Sales, who is under the Assistant Chief of Staff in the Supply Division.

Mr. ANTHONY. Have you ever seen that contract?

Gen. ROGERS. I have not seen the contract; no, sir.

Mr. ANTHONY. Are the sales of material of that kind, quartermaster material, made without consulting the Quartermaster Department?

Gen. ROGERS. In some cases.

Mr. ANTHONY. What value is the Government to receive for these sets of harness?

Gen. ROGERS. I can not tell you without looking it up.

Mr. ANTHONY. Before we get through we would like to have some officer give us that information.

Gen. ROGERS. I think the director of sales' office could give you the detailed information much better than my office could.

FOR REPAIRS AND MAINTENANCE OF ANIMAL-DRAWN VEHICLES AND HARNESS.

Mr. ANTHONY. For repairs and maintenance of animal-drawn vehicles and harness you are asking \$125,000. Is that simply for repairs?

Gen. CONNOR. For repairs and upkeep.

Mr. ANTHONY. How much has been spent during the current year so far?

Gen. CONNOR. \$54,870 during the first half of the year.

Mr. SLEMP. General, what department decides upon the number of pack animals, etc., that should be kept for this purpose, what authority has charge of that?

Gen. CONNOR. The number of organizations that are kept is determined by the War Department; the General Staff fixes the number of pack animals in use in the different organizations. As regards the animals kept in the depots, I do not know what option there is in the Quartermaster Corps as to the number kept in the depots.

Gen. ROGERS. I can answer that question.

Mr. SLEMP. I am just following the question asked by Mr. Anthony about there being 48,000 of these pack animals, horses, etc., because there might be more than necessary.

Gen. ROGERS. Gen. Connor has no control over the number of animals whatsoever. He has simply charge of the animal transportation of the Army. He draws the animals from what we call the remount depots. The General Staff authorizes us, in fact directs us, to keep a certain number of animals and we have no option in the matter, one way or the other.

WATER TRANSPORT DIVISION.

ARMY TRANSPORTS.

Mr. ANTHONY. How many Army transports are in active use at this time?

Gen. CONNOR. There are two in the Antwerp run, one on the Panama run, and one in reserve, there are four on the Manila run and one in reserve, there is one freighter in the Graves Registration Service between New York and Europe, and one freighter on the Pacific at the present time.

Mr. ANTHONY. Will you maintain this number of transports during the next fiscal year?

Gen. CONNOR. That is approximately the number that will be necessary for the next fiscal year.

Mr. ANTHONY. That does not include the Panama steamers?

Gen. CONNOR. Not the Panama Railroad Steamship Line.

Mr. ANTHONY. That is still operated by the Panama Railroad Co.?

Gen. CONNOR. Yes, sir.

Mr. ANTHONY. If our division is brought back from Europe would you still need these transports?

Gen. CONNOR. No; we would cut out the European run.

Mr. ANTHONY. Cut it out entirely?

Gen. CONNOR. Yes, sir.

Gen. ROGERS. For the Graves Registration Service, you mean.

Gen. CONNOR. Yes, sir; the freighter would still run until the bodies are all brought back.

Mr. ANTHONY. How long will it be before the bodies are brought back?

Gen. CONNOR. I would not want to give an official estimate, because it is not in my department. I heard from an officer over there and he said that the work would be finished in the late summer of 1921. That is just in a personal letter.

Mr. ANTHONY. Are you using the transports commercially?

Gen. CONNOR. That has been stopped during the last month.

Mr. ANTHONY. Did you make any use of the authority given in the last appropriation bill to use the transports for commercial purposes where proper facilities were lacking on commercial lines?

Gen. CONNOR. They were used up until recently, until the Shipping Board said in their estimation there was no longer an emergency existing, and after consultation with them we were directed to stop the transportation of civilians on Army transports. The total number of passengers carried were 1,373 first class, 304 second class, and 8,143 third class. They were carried under that authorization.

Mr. ANTHONY. Did you carry any freight?

Gen. CONNOR. There was a small amount of freight, but that never amounted up to any considerable item.

Mr. ANTHONY. So far as competition with commercial liners was concerned, it did not amount to anything?

Gen. CONNOR. No; I think not. It was only done where people could give a certificate that they could not get the transportation at that time by commercial lines.

Mr. ANTHONY. In your opinion, is there any necessity existing at the present time for your transports doing any commercial work?

Gen. CONNOR. No; I do not think so. It has been recommended that they do not, and under existing instructions it was all stopped except a little transportation to and from the island of Guam.

Mr. ANTHONY. The last appropriation bill authorized the sale of eight old transports; have they been sold?

Gen. CONNOR. We have advertised for sale all those that were authorized except the *Thomas*, the *Sherman*, *Sheridan*, and the *Logan*, I believe. Those are four twin-screw transports that we were not quite prepared to release at the present time. The others are under advertisement for sale, and I think the bids are to be opened in a week or 10 days.

Mr. ANTHONY. You have no way of knowing, of course, what they will sell for.

Gen. CONNOR. Well, I know the sale is going to be tremendously less than was anticipated.

Mr. ANTHONY. What was the idea in delaying so long selling them after authority was given in the act?

Gen. CONNOR. I do not know how that arose.

Mr. ANTHONY. When did you get the order to advertise them for sale?

Gen. CONNOR. There was no order issued. I took charge of the transport service in the middle of August and the proposals were started somewhere along in the latter part of September or early in October, and then the data was gotten together to give information to bidders, etc., and the advertisements were started, I think, in November. Some of the ships were in the Philippines, so it took quite a while for prospective bidders to get their information.

Mr. ANTHONY. How are you going to replace the steamers that are to be sold?

Gen. CONNOR. We have the 11 transports known as the type B transports that were built by the Shipping Board and turned over to the Army for use.

Mr. ANTHONY. Have they been turned over?

Gen. CONNOR. There have been eight of them delivered at the present time and the other three will be delivered, they estimate, within the next month.

Mr. ANTHONY. Is that the very latest type of ship for the transportation of troops?

Gen. CONNOR. It is the latest one we have gotten.

Mr. ANTHONY. I mean, they were built for the purpose?

Gen. CONNOR. No; they were built for freighters, I think, at first, and then they were redesigned for war purposes for the transport of troops in the North Atlantic to France. They were built of what is known as fabricated material, so that when it was finally decided to assign 11 of them to the transport service of the Army no great structural changes could be made, and they had to be built as they were, so that while as ships they are splendid, fast ships, they are not as satisfactory from all points of view for transports as they might have been had they been specially designed for that purpose.

Mr. ANTHONY. You equipped them for Army purpose simply because the Government had already constructed them and had no other use for them?

Gen. CONNOR. Yes, sir.

Mr. SLEMP. General, what is the rate of pay for your employees on these transports? Is the rate somewhat similar to the La Follette Seamen's Act?

Gen. CONNOR. Our rates of pay are parallel with those fixed by the United States Shipping Board and the American Shipowners Association. They are the big concerns that deal with the labor unions and they practically make agreements as to what work shall consist of, how many men there shall be, and in general terms, I imagine, what the rate of wages shall be, because we follow along and practically accept the scale of those people.

Mr. ANTHONY. Do you operate the transports with civilian help?

Gen. CONNOR. Altogether; yes, sir.

Mr. ANTHONY. If I remember correctly, last year in the hearings you mentioned that it was possible you might use some enlisted men for that purpose.

Gen. CONNOR. There never has been any provision made for operating the transport service by enlisted men. From many points of view it would be very desirable, but it has never been done.

Mr. ANTHONY. Would it be practicable and cheaper to use enlisted men?

Gen. CONNOR. I do not believe it would be cheaper. From many points of view it would be very desirable but I have never gone into it from the point of view of economy as to what the amount would be, but I do not believe there would be very much economy in it.

Mr. SLEMP. What rate of wages do you pay?

Gen. CONNOR. As to any particular positions?

Mr. SLEMP. Well, for instance, firemen, engineers, etc.

Gen. CONNOR. The chief engineer gets from \$3,800 to \$4,200. The firemen get \$1,080 a year. I am just taking these figures from a list here and I do not know whether they are actually typical or not.

Mr. ANTHONY. And they get board on the ship?

Gen. CONNOR. Yes, sir; The masters get approximately from \$4,000 to \$4,500.

Mr. ANTHONY. Is your rate of pay practically the same as on commercial liners?

Gen. CONNOR. Yes; we follow the local union rates that are agreed to by the Ship Owners' Association and the Shipping Board who are the big hirers of this class of employees.

Mr. ANTHONY. And you put on the same number of men that a commercial line ship would have, under the terms of the La Follette bill mentioned by Mr. Slemp?

Gen. CONNOR. Yes, sir; it is practically the same.

Mr. ANTHONY. Do you find those requirements burdensome?

Gen. CONNOR. I think they require us to carry more people than in my judgment at times would be necessary, but naturally, when I find what they are, I simply accept them. I am not a seagoing man. At times, it does seem I have got more firemen or more employees of one kind or another than are necessary, but I would hesitate to say that they are more than are actually necessary.

Mr. ANTHONY. I am going to ask you, generally, about these appropriations for Army transports, because we would not know much about the items if we were to go into them. Are they based on what it has cost you to operate the same transports so far this year?

Gen. CONNOR. They are based on the actual cost of transports to be in commission. We keep monthly figures of cost.

Mr. ANTHONY. Will your activities be greater or less the next year?

Gen. CONNOR. They are reduced now to a peace-time basis practically, with the exception of some freight, but if the troops were withdrawn from Europe that would decrease the number of ships to be run.

Mr. ANTHONY. There is nothing out of this amount for Army transports to be used for purchase or for construction?

Gen. CONNOR. No, sir; all that item was cut out.

Mr. ANTHONY. I want first to take up with you the item of fuel, which is a very large one.

FUEL.

Gen. CONNOR. Fuel is a frightful item. I will admit that.

Mr. ANTHONY. You are asking for \$4,876,900 for the next fiscal year and you were appropriated \$5,600,000 during the current year. How much have you expended for fuel so far during this fiscal year?

Gen. CONNOR. Approximately \$10,300,000.

Mr. ANTHONY. Up to January?

Gen. CONNOR. No; I think the contract is for the rest of the year, unless I am mistaken.

Mr. ANTHONY. \$10,000,000 will cover your fuel requirements for the entire year?

Gen. CONNOR. That is what I understand; yes, sir.

Mr. ANTHONY. Mr. Slemp yesterday wanted to know whether this estimate as to your fuel requirements had been based upon the prevailing market price of coal or upon what the coal will probably cost.

Gen. CONNOR. It is our estimate based upon what we have been paying. The price of coal in New York in 1919 was \$8 a ton on board, and in 1920 it went up to \$12.50. In Manila it cost in 1919 and preceding years only about \$10, but during the last year it cost \$21.

Mr. ANTHONY. Is the coal you get on the Atlantic seaboard what is called Pocahontas coal?

Gen. CONNOR. No, sir; that is a very good steaming coal. I think we buy a poorer grade than that.

Mr. ANTHONY. Can you use any kind of coal that is purchased along the coast here?

Gen. CONNOR. I think so because we have never had any difficulty anywhere, and we use the low grade Japanese coal on the ships and the ships can be used anywhere, and that they have all run to the different ports during the past year, and I have never had any complaint about the coal.

Mr. ANTHONY. Mr. Slemp spoke of the fact that coal is being sold as low as \$3 at the Virginia mines at the present time.

Gen. CONNOR. This price is on board the ships, of course, and is higher.

Mr. ANTHONY. What price per ton have you figured it will cost you during the next fiscal year delivered on board ship?

Gen. CONNOR. \$12.50, at New York, \$14 as a general average.

Mr. ANTHONY. If prices go down to \$3 at the mines, do you think the price delivered will run up that high?

Gen. CONNOR. I have not followed it up to the mine but have taken the price running through the year as we get it in New York Harbor and the different places where we buy the coal.

Mr. SLEMP. I should say that the transportation cost from the West Virginia mines would certainly not be over \$2.50 a ton.

Gen. CONNOR. Unfortunately, we get very little coal down there.

Mr. ANTHONY. How many tons do you figure on using in the next fiscal year?

Gen. CONNOR. I can insert that figure. Unfortunately, I have not added it up. I have it figured by ships per day and per month and have carried it out in dollars. I will insert in the record the amount of coal and the amount of fuel oil.

Mr. ANTHONY. I wish you would put in the record how many tons you will use during the current fiscal year and how many tons you figure you will use during the next fiscal year, and then the committee can form some idea as to the probable price of coal.

Estimated quantities of coal and of fuel oil that will be used by the Transportation Service of the Quartermaster Corps during the fiscal years 1921 and 1922.

Fiscal year 1921: 304,110 tons coal; 33,545 gallons fuel oil.

Fiscal year 1922: 203,400 tons coal; 34,440 gallons fuel oil.

Mr. SLEMP. General, you are running these ships at a cost for fuel alone of \$1,000,000 a year.

Gen. CONNOR. Per month.

Mr. SLEMP. No; for each ship. When you spoke of 11 vessels running, there were two or three in reserve, and the expenditure for fuel was over \$10,000,000, which means that over \$1,000,000 is the cost of fuel for one vessel.

Gen. CONNOR. I can give you worse figures than that. Fuel oil is a good deal worse than that. Fuel oil will run up, for the new-type ships, to \$2,000 a day.

Mr. ANTHONY. Is fuel oil more expensive than coal?

Gen. CONNOR. It is more than double. Right in New York it is approximately double and out on the Asiatic coast it is triple.

Mr. ANTHONY. That is, it costs you twice as much to navigate a ship with fuel oil than with coal?

Gen. CONNOR. No; not quite; because the efficiency is a little higher and the ship will make more miles.

Mr. SLEMP. From your figures I would make it less, because figuring on 360 days a year and \$2,000 a day would mean \$720,000 a year for fuel oil.

Gen. CONNOR. Yes.

Mr. SLEMP. Whereas your coal bill would be \$1,000,000 a year.

Gen. CONNOR. No; the figures you are using are for fuel, which means coal and fuel oil together.

Mr. SLEMP. I understand; but that averages more than \$1,000,000 a vessel.

Gen. ROGERS. I think Gen. Connor has mislead you as to the number of transports. I think there are more transports than Gen. Connor indicated.

Mr. SLEMP. He mentioned 11, of which there were 3 in reserve.

Gen. CONNOR. And then I gave the freighters; in addition, there are 4 interisland transports in the Philippine-China service, which

we were not discussing at that time. There is a total of 17 vessels in commission, or will be on the ordinary peace basis, and 19 out of commission.

Mr. SLEMP. Have you tried to get any recent data on coal which is to be furnished the vessels?

Gen. CONNOR. No; the purchase of fuel was consolidated some time ago, and since then we have not had any of the expenditure of fuel money.

Mr. SLEMP. The Quartermaster Department does not purchase fuel?

Gen. CONNOR. Ordinarily we purchase the fuel, but all the quartermaster money for fuel was consolidated, and now we get all our coal furnished out of that.

Mr. SLEMP. Then the gentleman who was on the stand yesterday in reference to a fuel item would be the one who is responsible for it; is that the idea?

Col. HANNAY. Yes, sir; we will put into the hearings the cost of steaming coal used by the Army Transport Service at the mine and at New York Harbor, or at any other places you desire.

Mr. SLEMP. I wish when you make up that statement with reference to the item of 1,400,000 tons of bituminous coal you would indicate the points to which that is to be delivered—so much in Washington, for instance, so much in Chicago, or wherever it is, just generally.

Estimated cost of steaming coal.

2. Estimated cost of steaming coal f. o. b. mines for fiscal year 1922, \$6.10 per ton. Estimated cost delivered in bunkers at principal seaports, \$9.20 per ton.

Col. HANNAY. The coal we referred to yesterday was not this coal. That was coal for heating purposes, etc. This, of course, is steaming coal for transports.

Mr. SLEMP. This coal comes from your general supply of coal, does it not?

Col. HANNAY. Yes, sir; but it is paid from transport money.

Mr. SLEMP. It is purchased by the department?

Col. HANNAY. Yes; but it is a higher-priced coal. It is steaming coal.

Gen. CONNOR. Let me explain about this item of fuel. It includes a great many vessels in addition to transports. This fuel item includes for this present year the fuel used on some 630 craft of all kinds used throughout the United States and the islands, Panama, etc., for Coast Artillery, etc. I was letting you charge all of that to the transports.

Mr. ANTHONY. Does it include all the Army tugs?

Gen. CONNOR. All the Army tugs and passenger boats, and all the mine planters, and boats of that sort.

Mr. ANTHONY. Suppose you put in the hearing a list of all the craft that the Quartermaster Department operates, not by name but by classification.

Gen. CONNOR. Yes.

STATEMENT SHOWING NUMBER OF EACH CLASS OF BOAT NOW BEING OPERATED BY
THE QUARTERMASTER CORPS.

ARMY TRANSPORT SERVICE—UNITED STATES—TRANSPORTS.

Thomas, Sherman, Sheridan, Logan, Dix, Buford, Santa Leonora, Madawaska, Burnside (cables ship), Cantigny, Cambrai, St. Mihiel, Wheaton, Edgemoor, Somme, President Grant.

Out of commission.—Argonne, Chateau Thierry, Chaumont, Kilpatrick, Marne, Ourcq, Great Northern, Northern Pacific.

PHILIPPINE ISLANDS—TRANSPORTS.

Liscum, Merritt, Wigmore (collier), Warren.

RIVER AND HARBOR BOAT SERVICE—UNITED STATES—TRANSPORT SERVICE.

3 ferryboats.	18 derrick lighters.
18 freight and passenger steamers.	23 barges.
2 house-boats.	4 coal boats.
61 steam and gasoline launches.	6 coal hoisters.
33 lighters and scows.	5 steam lighters.
18 tugs.	2 rowing yawls.
12 submarine chasers.	2 motor yawls.
31 water tenders.	

PHILIPPINE ISLANDS—TRANSPORT SERVICE.

5 freight and passenger steamers.	1 tug.
20 steam and gasoline launches.	1 water tender.
27 lighters and scows.	26 lorches.

COAST ARTILLERY BOAT SERVICE—UNITED STATES—TRANSPORT SERVICE.

20 freight and passenger steamers.	4 barges.
53 steam and gasoline launches.	16 mine planters.
2 cable steamers.	25 junior mine planters.
3 lighters and scows.	64 rowing yawls.
13 tugs.	98 motor mine yawls.
10 submarine chasers.	47 D. B. boats.
3 water tenders.	5 rowboats.
4 derrick lighters.	

PHILIPPINE ISLANDS—TRANSPORT SERVICE.

9 steam and gasoline launches.	2 mine planters.
1 submarine chaser.	7 D. B. boats.
2 water tenders.	

STEVEDORING ON WHARVES.

Mr. ANTHONY. Another large item is for stevedoring wherein you ask for \$742,800 for the next fiscal year. There was appropriated \$205,000, or was that an allotment?

Gen. CONNOR. That is an apportionment.

The CHAIRMAN. How much have you expended so far this year for this purpose?

Gen. CONNOR. We have already expended this year for that item \$460,407.

Mr. ANTHONY. That is for loading and unloading?

Gen. CONNOR. That is loading and unloading and stevedoring work on wharves.

Mr. ANTHONY. And that is figured on what you would regard as the normal operation of your transports?

Gen. CONNOR. Approximately. This \$406,000 is slightly more because that is for the six months when we have been running more transports.

REPAIRS.

Mr. ANTHONY. For repairs, you are estimating \$2,455,550 for next year and you were allotted \$1,045,750 for the current fiscal year. How much have you spent so far in repairs?

Gen. CONNOR. This year we have spent for the first six months \$780,456. Next year it depends considerably upon what decision is made in regard to the kind of transportation and what disposition we make of the old transports. If we sell them and keep the new ones, there will have to be changes to make them suitable for the Pacific and tropical service.

Mr. ANTHONY. Then it depends on the matter of policy how much money you will need for repairs?

Gen. CONNOR. Yes. This figure is based on the usual trip repairs. We have counted on the new vessels having light trip repairs and the four old ones as having the trip repairs which they usually have, which amount to about \$4,000.

Mr. ANTHONY. Is the item of wharfage for which you estimate \$167,654 fixed by contracts now made, or are there any new contracts to be made?

Gen. CONNOR. There is nothing new contemplated. That is practically the standing list of wharves at places where we do not own them.

Mr. ANTHONY. And that is what it will cost you this year?

Gen. CONNOR. Yes.

FOR RIVER AND HARBOR BOATS—HIRE OF EMPLOYEES.

Mr. ANTHONY. For river and harbor boats, hire of employees, you are asking \$1,512,000.

Gen. CONNOR. The expenditures under that item for the first six months——

Mr. ANTHONY (interposing). Do you operate all the boats engaged in river and harbor work?

Gen. CONNOR. These are the boats serving the posts on islands and rivers.

Mr. ANTHONY. And has nothing to do with boats used by the engineering department?

Gen. CONNOR. No, nothing at all.

Mr. ANTHONY. Are you operating any commercial line of river steamers at the present time?

Gen. CONNOR. No.

Mr. ANTHONY. That has been discontinued?

Gen. CONNOR. No, that is under another branch. That is under the Inland and Coastwise Waterways Service.

Mr. ANTHONY. Of the Quartermaster Department?

Gen. CONNOR. No, I am responsible for it but directly to the Secretary of War.

Mr. ANTHONY. Where do we appropriate for that service?

Gen. CONNOR. In the sundry civil bill.

Mr. ANTHONY. Well, tell us about this item.

Gen. CONNOR. We have expended \$1,051,081 in the first six months of this year. There was recently a reduction of 25 per cent and that is the reason you find the figures here less than the \$2,000,000 that would be required if we continued at the rate we went for the first six months of this year.

Mr. SLEMP. General, that again brings up the same question. You had an appropriation last year and an allotment and you have violated that allotment, and now you ask for another appropriation, and suppose that were allowed and there was an allotment made, and at the end of six months you spent the entire amount, your contention would be, "Well, I just could not help it."

Gen. CONNOR. The service has been cut down, by direction, to the very minimum it could be reduced; that is, for instance, an artillery post down the river will have one boat connecting it with the nearest city, and after that policy is fixed I have nothing to do but run the boat, keeping it down, as I say, naturally using my interest—

Mr. SLEMP. The alternative would have been to make fewer trips or to discontinue the service.

Gen. CONNOR. Most of them are established at isolated places. For instance, Fort Washington down the river here. The least you can have is one boat there and if the boat is in commission it costs, barring fuel, just as much whether it makes one trip a week or two trips a week, or one trip a day.

Mr. SLEMP. Suppose you said you did not have any money and would have to discontinue the service?

Gen. CONNOR. That could be done and yet the answer to that is that Congress also expects the Army to be carried on and has authorized specifically—

Mr. SLEMP (interposing). A certain sum of money.

Gen. CONNOR. But has also authorized that a deficit can be created in certain items that are considered necessary to carry on the life of the Army, transportation being one of them.

Mr. SLEMP. Does it provide for any limitation?

Gen. CONNOR. Nothing that I know of; no, sir.

Mr. ANTHONY. You are asking for over \$3,000,000 to carry on the operation of these river and harbor boats for the next year. Of course, I know that this expense grew very largely during the war. Have you any record to show how much you expended for the operation of river and harbor boats in the year before we entered the war?

Gen. CONNOR. I am quite sure I can write that into the record.

Mr. ANTHONY. I wish you would put that in the record and give us an idea as to how much this service has expanded. This appropriation was not anywhere near this sum, as I recall.

Gen. CONNOR. No; I imagine that the number of boats is pretty nearly the same, but the amount of money involved was not as great.

NOTE.—The cost of river and harbor boats fiscal year 1916. \$944,697.22.

COAST ARTILLERY BOATS.

Mr. ANTHONY. The next heading is, "Coast Artillery boats."

Gen. CONNOR. There is not any difference between the river and harbor boats and the Coast Artillery boats except they are manned by the Coast Artillery and operated by them, whereas the river and harbor boats are manned and operated by civilians.

Mr. ANTHONY. You are asking for a total of \$3,717,000 for the Coast Artillery boats. How much is that service going to cost for the current year?

Gen. CONNOR. It will cost for employees alone \$260,000.

Mr. ANTHONY. It will cost or has cost that much?

Gen. CONNOR. For the first six months it cost that amount.

Mr. ANTHONY. You are asking for \$1,657,000 for hire of employees for one year.

Gen. CONNOR. Let me correct that figure because there must be a mistake because my balance and apportionment do not make that figure. I will write that figure into the record, if I may. I have down here the figure \$260,000 for first six months fiscal year 1921, but I think that must be a mistake. No; it is not a mistake; allotments for first six months, \$259,740.74; probable cost during fiscal year 1921, \$520,000.

Mr. ANTHONY. There was allotted for that purpose \$969,000, which shows that you are asking for the next fiscal year almost double the allotment for the current fiscal year.

HIRE OF SUBSTITUTE BOATS.

Take up the item of hire of substitute boats, \$65,000. Does that mean the regular boats are incapacitated that you hire boats to take their place?

Gen. CONNOR. Yes; for instance, take a case which just arose in San Francisco, where the boat broke down and we hired another boat to replace it until it could be repaired.

Mr. ANTHONY. Will you also put in the record figures to show the cost of the Coast Artillery boats the year before we entered the war?

Gen. CONNOR. Yes, sir.

NOTE.—The cost of Coast Artillery boats fiscal year 1916 was \$641,824.86.

Mr. SLEMP. Have you data in regard to the cost and character of the fuel?

Mr. ANTHONY. That fuel is purchased under the same contract?

Gen. CONNOR. The fuel for all those boats is purchased under the same contract.

Mr. ANTHONY. That is an allotment?

Gen. CONNOR. It is the allotment that we carry under the different items. The item numbers are fixed, and everybody knows what you are talking about when you refer to such a number.

RAIL TRANSPORTATION DIVISION.

Mr. ANTHONY. In your rail transportation division, you have an item of \$675,000 for employees. What class of employees are they?

Gen. CONNOR. Yardmasters, locomotive engineers, firemen, switchmen, and that class of employees.

SPUR LINES AND SWITCHES.

Mr. ANTHONY. Do you operate railroad systems?

Gen. CONNOR. Not systems, but at practically all of those big camps there are spurs running to the nearest railroad, and the spurs, as a rule, are operated by the transportation personnel.

Mr. ANTHONY. Will you put in the record a list of the lines or pieces of railroads that are being operated by your department?

Gen. CONNOR. They really are not lines, as a rule.

Mr. ANTHONY. Well, wherever locomotives are employed.
Gen. CONNOR. I will do so.

Location.	Locomotives.	Cars.	Trackage.
Amatol Arsenal, N. J.			36 miles.
Andrews, Fort, Mass. (narrow gauge)		5	1,500 feet.
Atlanta, Ga., G. S. D.			6,102 feet.
Barrancas, Fort, Fla.		7	2,500 feet.
Benning, Camp, Ga.	10	103	6.2 miles.
Boston, Mass., G. S. D.	1	8	2.2 miles.
Bragg, Camp, N. C.	1		11 miles.
Brooklyn, N. Y., G. S. D.		4	20 miles.
Brooks Field, Tex.			4,503 feet.
Brown, Fort, Tex.		13	1 mile.
Do.		42	
Carlstrom Field, Fla.	2	13	5,000 feet.
Do.		4	
Charleston, S. C., A. S. B.	4	52	2,976 feet.
Chicago, Ill., G. S. D.			11,389 feet.
Columbus, Ohio, G. S. D.		1	13 miles.
Devens, Camp, Mass.	1		9 miles.
Edgewood Arsenal, Md. (standard gauge)	3	24	22 miles.
Edgewood Arsenal, Md. (narrow gauge)	31	152	13 miles.
Ellington Field, Tex.			7,958 feet.
El Paso, Tex., G. S. D.			3,300 feet.
Eustis, Camp, Va.	5	20	81,335 feet.
Fairfield, Ohio, W. W. A. G. S. D.	3	2	5,000 feet.
Governors Island, New York Harbor.	3	41	See Brooklyn. N. Y.
Grant, Camp, Ill.			55,000 feet.
Hancock, Fort, N. J.	2	11	15 miles.
Harrison, Fort Benjamin, Ind. (narrow gauge)	2	21	5,000 feet.
Holabird, Camp, Md.	1	18	7.1 miles.
Humphreys, Camp, Va. (standard gauge)	2	26	6.84 miles.
Humphreys, Camp, Va. (narrow gauge)	17	84	
Jeffersonville, Ind., G. S. D.			7 miles.
Jesup, Camp, Ga.			2,100 feet.
Jackson, Camp, S. C.	2		7.8 miles.
Kearny, N. J.	6	70	3.5 miles.
Kelly Field, Tex.			5,300 feet.
Knox, Camp, Ky. (narrow gauge)	4		9 miles.
Langley Field, Va.	2	1	9,500 feet.
Leavenworth, Fort, Kans., U. S. D. B.	1	8	8.84 miles.
Love Field, Tex.			9,614 feet.
March Field, Calif.			4,122 feet.
Mather Field, Calif.			4,536 feet.
McClellan, Camp, Ala.			7.5 miles.
McIntosh, Fort, Tex.		44	5,000 feet (narrow gauge).
Meade, Camp, Md.	1		11.3 miles.
Middletown, Pa., A. G. S. D.	1	2	1,300 feet.
Mitchel Field, L. I.			3,514 feet.
Monroe, Fort, Va.	2	5	2 miles.
Montgomery, Ala., A. R. D.			1,200 feet.
New Cumberland, Pa., A. R. D.	1	2	52,027 feet.
New Orleans, La., G. S. D.	3		15,000 feet.
Norfolk, Va., A. S. B.	5	37	45 miles.
Omaha, Nebr., G. S. D.			1,430 feet.
Philadelphia, Pa., G. S. D.	1		1,300 feet.
Pittsburgh, Pa., G. S. D.			2,850 feet.
Port Newark, N. J.	2	35	15.5 miles.
Rockwell Field, Calif.			7,082 feet.
Sam Houston, Fort, Tex.			12,335 feet.
St. Louis, Mo.			2,200 feet.
Schenectady, N. Y., A. R. D.		2	12.67 miles.
Scott Field, Ill.			5,905 feet.
Sheridan, Fort, Ill.			18,000 feet.
Sherman, Camp, Ohio.	1	5	3.5 miles.
Sill, Fort, Okla.			18 miles.
Stanley, Camp, Tex.			34,932 feet.
Taylor, Camp, Ky.		8	7 miles.
Travis, Camp, Tex.	1	12	17 miles.
Vail, Camp Alfred, N. J.			1,085 feet.
Panama Canal Zone:			
Amador, Fort.	2	13	8,780 feet.
Cristobal.	3		
De Lessepps, Fort.	1		
Sherman, Fort.	1	1	
Hawaiian Territory:			
Schofield Barracks (narrow gauge)	3	10	
Philippine Islands:			
Manila.		25	
Mila, Fort.	8	28	
Do.		15	

¹ Motor cars.

² Passenger cars.

Mr. SLEMP. Have you tried to get the railroads to operate those spur lines or switches?

Gen. CONNOR. As a rule, it is cheaper for us to do that ourselves than it would be to have them do it.

Mr. SLEMP. I do not understand why it would be. They have the organization, and you have to have continuous service of that character right along.

Gen. CONNOR. For instance, take the camp that I came from before I came into this position. I was at Camp Humphrey, down the river, and there is a spur there that leads into a little village 25 or 30 miles below Washington. There is nothing there, of course, and if the railroad operated the spur they would have to operate it on exactly the same basis that we do—that is, they would have to keep their personnel at the post. There is a locomotive operating back and forth between the main line and the post, and we can do it more cheaply than they.

Mr. SLEMP. Camp Meade is right along the main line of the railroad.

Gen. CONNOR. I should think that freight would be put in there by the railroad itself.

Mr. SLEMP. Taking Camp Meade as an illustration, do you operate any spur lines at that camp?

Gen. CONNOR. I can not say with regard to that. I do not know whether we have any at Camp Meade or not. That has been pretty nearly abandoned during the time I have been here.

TRANSFER OF TROOPS.

Mr. ANTHONY. I notice that a large number of troops have been transferred to Camp Meade from Camp Funston?

Gen. CONNOR. Yes, sir; the Seventh Division has been moved there.

Mr. ANTHONY. They intend to use it as one of the posts?

Gen. CONNOR. Yes, sir.

Mr. ANTHONY. Did you say the Seventh Division had been moved there?

Gen. CONNOR. Yes, sir.

Mr. ANTHONY. How many troops were moved to Camp Meade from Camp Funston?

Gen. CONNOR. I have not the number that has been moved. I do not know.

Mr. ANTHONY. You do not know the cost of moving them?

Gen. CONNOR. No, sir. I will have to look that up.

Mr. ANTHONY. Will you put in the record a statement showing the number of troops that were moved from Camp Funston to Camp Meade, and what it cost to transport those troops, and also what it cost to transport the property?

Gen. CONNOR. I will do so.

Movement of Seventh Division, December, 1920-January, 1921.

[Estimated, but practically correct.]

	Num- ber.	Passengers.	Freight.	Total.
Camp Funston to Camp Pike.....	190	\$3,591.00	\$7,582.00	\$11,173.00
Camp Funston to Camp Meade.....	2,652	150,000.00	446,000.00	596,000.00
Total cost.....				607,173.00

SPUR LINES OPERATED BY RAILROAD COMPANIES.

Mr. SLEMP. Are there any military posts at which the spur line is operated by a railroad company?

Gen. CONNOR. I know of one where that is the case. At Camp Benning we have an agreement with the Central of Georgia Railroad by which they operate that line at Camp Benning.

Mr. SLEMP. You figured in that case that it would be cheaper for them to operate it?

Gen. CONNOR. Yes, sir; we do that where it can be operated in that way to the best advantage of the Government.

Mr. SLEMP. How about Camp Taylor?

Gen. CONNOR. I do not know about Camp Taylor. I will furnish that in the information you have asked for.

NOTE.—At Camp Taylor cars are spotted by Southern Railroad; tracks operated as those of industrial plant.

HIRE OF DOCK LABORERS.

Mr. ANTHONY. For the hire of dock laborers for the next fiscal year you ask \$294,000. How much will you use for that purpose this year?

Gen. CONNOR. For the first six months we have used \$170,485.

Mr. ANTHONY. What was allotted for that purpose for the current fiscal year?

Gen. CONNOR. \$35,000. Those allotments are not made by Congress, but they are apportionments made under the appropriation of \$40,000,000.

Mr. ANTHONY. Who could have apportioned \$35,000 for the hire of dock laborers when, as a matter of fact, you have actually expended so far a sum greatly in excess of that amount?

Gen. CONNOR. I do not know how that was done. That apportionment, or the original estimate, was made, as in all these cases. When we find that the funds are not sufficient, we present the case to the control service of the Quartermaster General's Office, and show them what the need is. For instance, we are running so many ships and handling so much freight and the expense of loading is so much. When that showing is made a transfer is made to this item from some other item where the money is available. Dock laborers are employed in the operation of ships and boats of various kinds.

Mr. ANTHONY. It has nothing to do with the Army transports?

Gen. CONNOR. There are three items for dock laborers.

STEVEDORES ON WHARVES.

Mr. ANTHONY. You ask \$742,000 for stevedores?

Gen. CONNOR. They do only a certain class of work. They load and unload transports, and the dock laborer is another man.

Mr. ANTHONY. They are laborers connected with the rail transport division?

Gen. CONNOR. Yes, sir.

Mr. ANTHONY. They would only handle material transported by the railroad?

Gen. CONNOR. No, sir. In all probability these would be set up as laborers on the dock there to handle material on the wharf itself after it is unloaded by the stevedores. They would move it to the cars and load it, or they would unload the cars on the wharf preparatory to its movement by the stevedores.

FOR TRAVEL ALLOWANCE OF OFFICERS AND ENLISTED MEN.

Mr. ANTHONY. For travel allowance of discharged officers and enlisted men you estimate \$3,658,500. Is that based on an army of 175,000 men?

Gen. CONNOR. That is for officers.

Mr. ANTHONY. It is for travel allowance of discharged officers and enlisted men. When an officer receives his discharge what do you allow him?

Gen. CONNOR. I do not know.

Gen. LORD. Four cents per mile.

Mr. ANTHONY. To his home?

Gen. LORD. Yes, sir.

Mr. ANTHONY. And enlisted men get how much?

Gen. LORD. Five cents per mile.

Mr. ANTHONY. This is based upon the number of men who will receive their discharge during 1922?

Gen. CONNOR. No, sir; I do not think it is. We were furnished information from the Adjutant General's Office as to the number that would be discharged, and it was approximately 180,000. According to our figures, which are based on the experience of other days and the distance that the men will travel, that figure will be considerably more than doubled. It will be nearer \$7,300,000 than \$3,700,000. That is an item over which we have no control whatsoever. A man is discharged, and the law provides that he has certain rights and privileges. This item is appropriated to transportation, although in fact we never see it.

Mr. ANTHONY. If we have an army of 150,000 men during the fiscal year 1920, it is obvious that you will not discharge 180,000 men.

Gen. CONNOR. I imagine we will, because there are a great many one-year men. We get the estimates of the discharges from the Adjutant General, and base our estimates upon that.

Mr. DENT. What is the strength of the Army?

Gen. CONNOR. It is 225,000 or 230,000 men.

Mr. SLEMP. That is a case where I think you might be compelled to create a deficiency.

Gen. CONNOR. Yes, sir.

Mr. SLEMP. That is something that is provided for by Congress and it is absolutely essential, but that would not apply to the keeping of 50,000 mules or horses and creating a deficiency on that account.

Gen. CONNOR. It would not arise in that way. A deficiency arises in the bigger items through the actual movement of troops, increased travel allowance, or more transportation service, etc. It would not occur in the keeping of animals, or at least not in the number which we could reduce.

TRANSPORTATION OF TROOPS CHANGING STATIONS.

Mr. ANTHONY. For the transportation of troops changing stations you have an item of \$2,655,964, while your item for the transportation of applicants for enlistment and recruits is \$4,466,242. Why does the transportation for recruits run higher than for troops changing stations?

Gen. CONNOR. The estimate made for the transportation of recruits is based upon the cost of the transportation of accepted recruits to their stations. According to the present information there will be 200,000 men enlisting to bring the Army up to the program proposed. That is based on 200,000 men being enlisted to replace discharged men and to bring the Army up to 296,000 men, whereas the troops changing stations would probably be materially less than that number. The estimate for the troops changing stations is based on the experience in 1916. For instance, we know that in that year the expenditure per man was so much with the strength of the Army up to a certain number. We are forced to revert to that year's experience. In figuring the expense of changing stations we must take the latest authentic information we have.

Mr. SLEMP. Suppose the Army were localized from the 1st of July, 1921, so that we could say that the organizations would remain where they were for the ensuing year, would not that stop this expense?

Gen. CONNOR. Yes, sir; if they were ordered not to move any troops that would certainly cut this out.

Mr. ANTHONY. They started out to localize the Army a year ago, and they said they would only recruit certain organizations from States in the vicinity of those organizations. I suppose that would cut down this item.

Gen. CONNOR. Yes, sir.

Mr. ANTHONY. Has that worked out in any appreciable degree? As a matter of fact, they continue, when they get in recruits, to send them all over the country and all over the world, do they not?

Gen. CONNOR. I do not know how they handle that. As to the amount involved in the transportation of recruits, the estimated liability on account of applications for enlistment during the first six months of this year are \$1,970,000, and for troops changing station the estimated liabilities are \$4,326,000.

Mr. SLEMP. That is for six months?

Gen. CONNOR. Yes, sir.

Mr. ANTHONY. That would amount to \$8,000,000 for the year!

Gen. CONNOR. That is for the first six months. The figures I gave you are based on the 1916 figures when it cost \$10.20 per man for the movement of troops changing station, adding to that figure the increase in passenger rates.

Mr. SLEMP. That is figured on the per capita basis?

Gen. CONNOR. Yes, sir; that is based on the latest information we have for a normal time, or on the 1916 figures.

Mr. SLEMP. It is not based on any well thought-out plan of the War Department as to the location of the various organizations for any definite length of time?

Gen. CONNOR. No, sir. I do not think it would be possible to give that sort of estimate.

Mr. SLEMP. For instance, a Cavalry organization might be fixed at a certain place. Could you visualize a limit for the location of organizations for any definite period of time, so far as these estimates are concerned, or can you say, "We will keep these organizations at these places for a year and will not change them"? Could you get at it in an affirmative way by stating that you propose to base the estimates upon the predetermined location of the troops, instead of upon per capita basis, where you assume that you will do in 1921 something similar to what was done in 1916?

Gen. CONNOR. In making up the estimates it would be impossible for anybody to say definitely "We will do so-and-so."

Mr. SLEMP. Would not that be the best way of submitting the estimates to Congress, so that no deficits would occur; and then, if necessary, come in later and say, "They told me to transfer these troops, and I had no option in the matter, and, therefore, there is a deficit"? How could we get from the War Department its policy as to the location of this Army?

Gen. CONNOR. I do not know of anybody that could give that.

Mr. SLEMP. They do not think it out that far in advance?

Gen. CONNOR. You have a constantly changing personnel, and I doubt if we could give that definitely. Of course, anybody could make a guess, but it would be no more than a guess.

Mr. SLEMP. For example, here is a division that has recently come to Camp Meade; how long will they stay there?

Gen. CONNOR. I imagine that is a permanent move.

Mr. SLEMP. Will they stay there, or will they be sent somewhere else?

Mr. ANTHONY. The Military Affairs Committee started them on the way back yesterday.

DISHONORABLY DISCHARGED SOLDIERS AND INSANE PERSONS.

Mr. ANTHONY. I notice a whole lot of items, about 20 in number, relating to transportation, and it is obviously impossible for us to go into all of them. Therefore I will jump down to the item for dishonorably discharged soldiers and insane persons. For the travel of dishonorably discharged soldiers and insane persons you are asking \$154,655. Do we transport dishonorably discharged soldiers to their homes?

Gen. CONNOR. I think so. We based this figure on the actual experience in 1916. The average distance traveled by these people is a little over 1,000 miles, and the estimate is based on the size of the Army at the beginning of next year. Assuming that there will be the same proportion of dishonorably discharged soldiers and insane persons, that would be the amount.

Mr. ANTHONY. Do we furnish transportation to dishonorably discharged soldiers?

Gen. LORD. Yes, sir.

Mr. ANTHONY. Do we furnish discharged prisoners with transportation home?

Gen. LORD. That I do not know. In the case of dishonorably discharged soldiers the contract is to get them back to their homes.

Mr. DENT. Soldiers discharged upon the ground of fraudulent enlistment are not included within those dishonorably discharged. At any event, you do not pay the transportation home of anyone discharged upon the ground of fraudulent enlistment?

Gen. LORD. No, sir. I think discharged prisoners get it.

FOR TRANSPORTATION OF SUPPLIES FOR WAR DEPARTMENT BRANCHES.

Mr. ANTHONY. I see that you have an item here covering the transportation of supplies for all of the other branches of the Army, including Ordnance, Signal Corps, Aviation, Medical Department, etc. Did they not take care of the transportation of their own stores previously, or has that expense always been carried here?

Gen. LORD. It has been carried for years here.

Mr. ANTHONY. I see that you are asking \$2,750,000 for the transportation of Ordnance stores alone.

Gen. CONNOR. We get the figures as to the amount of stores to be moved from the chiefs of the services.

Mr. SLEMP. Right here on this proposition, why could we not put in a provision here requiring them to ask the Quartermaster General if there are any funds on hand and available with which men can be transferred or supplies transferred? The Quartermaster might say, "No; I have used it all up." Why ought not that to be done?

Gen. CONNOR. It would be entirely within the province of Congress to say that. We were asked the other day if there was any money for the movement of certain supplies, and we informed them that they could not be moved without making an increase in the deficit.

Mr. SLEMP. Have they moved them?

Gen. CONNOR. We have not yet been given an order to move them.

SATURDAY, JANUARY 8, 1921.

MOTOR TRANSPORT DIVISION.

Mr. ANTHONY. Gen. Connor, all of the motor activities of the Army come under the head of Army transportation, do they?

STORAGE, MAINTENANCE, SURPLUS SALVAGE, AND SALE OF MOTOR VEHICLES.

Gen. CONNOR. Except the operations of certain ordnance vehicles which are special vehicles to be operated by the Ordnance Department. The great majority of them do; yes.

NUMBER OF MOTOR VEHICLES.

Mr. ANTHONY. Before we go into the appropriations for the motor-transport section of the bill we would like to hear something from you in regard to the number of motor vehicles that are now on hand in the Army. I wish you would tell us first the number that are actually in use and the number that are in storage for reserve, and the number that are in storage that have been declared surplus, to be disposed of.

Gen. CONNOR. First I will say that the term "motor vehicle," technically as it is used under the regulations includes bicycles and trailers which are not automotive vehicles; but for the purpose of this hearing I understand you mean vehicles operated by gasoline or some other fuel.

Mr. ANTHONY. Of course we would like to have them classified so that we can tell the number of bicycles, etc.

Gen. CONNOR. I can submit a table showing all that information in detail. For the general information of the committee, however, I would say that we have a total of 68,000 motor vehicles, excluding bicycles, of which approximately 50,300 are serviceable and about 17,700 are classed as unserviceable. The unserviceable vehicles vary from one that is wrecked to a vehicle that is simply out of commission temporarily, and therefore the 17,700 vehicles would in general terms be in about half serviceable as an average.

Number and classification of motor vehicles on hand, in use, and to be disposed of.

Type.	On hand.	In use.	To be disposed of.	In reserve or under repair or salvage.
Passenger.....	4,489	3,015	216	1,258
Trucks.....	33,922	18,548	6,850	8,524
Trailers.....	15,381	2,637	8,401	4,343
Motor cycles.....	10,505	6,454	3,985	66
Ambulances.....	2,445	1,142	.....	1,303
Special design.....	1,320	883	.....	437
Total.....	68,062	32,673	19,452	15,931

Mr. ANTHONY. How many of these vehicles are in actual use?

Gen. CONNOR. Of these there are about 32,700 in actual use, and approximately about 35,400 in storage.

Mr. ANTHONY. Of the 35,000 in storage, how many have been declared surplus, and how many are held in reserve for future use?

Gen. CONNOR. That whole matter is in a state of flux, and at present our instructions are to keep 30,000 vehicles for the use of the Army, to release approximately 1,500 that have been held for vocational training purposes, to be sent out to places where they will be so used, and then there will be approximately 8,000 vehicles for issue to the National Guard. This will release for surplus, in round numbers, about 28,000 vehicles, including 8,000 bicycles.

Mr. ANTHONY. You mean you will continue to carry as a reserve of motor vehicles approximately how many?

Gen. CONNOR. The reserve will be somewhere in the neighborhood of 11,250.

Mr. ANTHONY. On that point, are not these trucks that are being held in reserve deteriorating in value each year?

Gen. CONNOR. They are naturally deteriorating, both from nonuse and because they become more and more obsolete as advances are made.

Mr. ANTHONY. Do you think it would be better policy on the part of the Government to dispose of this large number of motor vehicles in storage and convert them into cash, and then should the necessity arise when we need more to obtain some vehicles that are up to date.

Gen. CONNOR. Yes, I think so. A reasonable amount ought to be held for these replacements, because they are good running vehicles; but I think that the Government would be much better off if it should dispose of the excess, especially those for which we have no adequate cover at the present time. We do not sell any vehicles except those practically scrap; they are turned over to other departments, but if they were actively used I think it would be better. We receive complaints about Army vehicles from places all over the country, where we have not a motor vehicle within hundreds of miles.

Mr. ANTHONY. You spoke about turning 8,000 motor vehicles over to the National Guard. Is that order issued?

Gen. CONNOR. Yes, sir.

Mr. ANTHONY. Have any been turned over to the National Guard?

Gen. CONNOR. Some of them have been issued to New York, and I think we are making arrangements to send them to all other States.

Mr. ANTHONY. Does that not mean that when the 8,000 are turned over to the National Guard it is going to cost a large sum of money for the Government to keep them in operation?

Gen. CONNOR. No, I do not think so, because they are not used a great deal, and the guard has them as a part of their equipment, and they do not have a great number of them.

Mr. ANTHONY. It will cost a great amount of money to keep them, and if the guard has them they are going to ride in them and we are going to be called on to appropriate for more motor vehicles.

Gen. CONNOR. In comparison with the operation of the vehicles the year round in the Army I do not think it would be a large item.

NUMBER OF MOTOR VEHICLES IN ACTIVE OPERATION.

Mr. ANTHONY. How many motor vehicles has the Army itself now in active operation?

Gen. CONNOR. Approximately 32,700.

Mr. ANTHONY. How can the Army possibly use that large number of motor vehicles?

Gen. CONNOR. They may not all be in active operation. They are assigned to organizations. Take, for instance, a division. It has its whole motor transport equipment assigned to it and keep it in shape, although it may not be using it all the time.

Mr. ANTHONY. The Army is now organized in nine divisions?

Gen. CONNOR. Yes.

Mr. ANTHONY. Do you mean you assign to each division complete motor equipment that would be sufficient to take a full division into the field?

Gen. CONNOR. It is assigned to it; whether they actually have all of it in each particular instance I am unable to say.

Mr. ANTHONY. For the most part it is your intention to assemble such motor equipment at each of the division points?

Gen. CONNOR. With the troops. If it has not been done it will be done in the near future.

Mr. ANTHONY. Is that not an unnecessary expense, in your opinion?

Gen. CONNOR. Well, that is a relative term. No——

Mr. ANTHONY (interposing). The division itself will possibly maneuver as a division once a year.

Gen. CONNOR. Yes.

Mr. ANTHONY. If we have to go to the expense of keeping up motor-truck trains that go with a division all the year, it seems to me it is going to eat up a lot of money.

Gen. CONNOR. It will. The whole thing is expensive. I would be inclined to think it would be better to have the equipment with the division and have that equipment taken care of by the personnel which the division has. It will have its own motor transport organizations as a part of the division, and if we keep the personnel of the division with the division and the trucks somewhere else, we would have an additional expense for keeping it up. So when we consider the cost I am inclined to think it would not cost any more and would probably bring about better results if this equipment were stored with the division.

Mr. Sisson. Do you not think it would be better to sell this stuff you are keeping in storage? In other words, you have a lot of unnecessary vehicles which you perhaps use once or twice a year, and there is a temptation on the part of many officers to use them or to abuse the use of them. I would not blame the officers or men as long as you have thousands of these vehicles lying around loose, deteriorating. Then the mere storage itself will be an expensive proposition.

Gen. CONNOR. The Army itself is an expensive proposition.

Mr. Sisson. We all realize that fully. That is the most surplus statement that has been made during the hearings. That is a self-evident proposition, and we are feeling that it is getting to be a sort of pride on the part of the Army to make itself as expensive as possible, because the utilitarian purposes of the Army will be measured by the number of dollars spent on the soldier. I am inclined to believe that you may find some Members of Congress and a great many people who differ with you.

Gen. CONNOR. You do me an injustice, I am afraid, because I myself am a miser so far as expenditures are concerned.

Mr. ANTHONY. Will you put in the record at this point a statement showing the number of motor vehicles that are assigned to each division of troops, the number of motor vehicles that will be assigned to each division, the number of motor transport organizations that will be with each division, and the number of civilian employees that will go with such a complement, with each division?

Gen. CONNOR. You would like to have that for the record?

Mr. ANTHONY. Yes, but you might tell us in a general way what that is.

Gen. CONNOR. The total number with a division is 77 passenger cars, 288 motor cycles, and 340 trucks.

Number of motor vehicles (each class separately) now assigned to each division and number to be assigned under new allowance.

[This statement includes all motor vehicles assigned to a division for operation by the various arms and services.]

Type.	Present tables of organ- ization.	Proposed tables of organ- ization.
Passenger.....	84	77
Trucks.....	575	369
Trailers.....	55	5
Motor cycles.....	309	208
Ambulances.....	83	(1)
Special design.....	40	(1)

¹ Not determined.

NUMBER OF QUARTERMASTER CORPS MOTOR TRANSPORT ORGANIZATIONS NOW ASSIGNED TO EACH DIVISION, WITH CLASSIFICATION OF PERSONNEL, SALARIES, AND TOTAL COST PER MONTH.

Organizations:
 1 headquarters motor command.
 2 motor transport companies.
 1 motor cycle company.
 1 service park unit.

Classification of personnel and monthly salaries.

Grade.	Base pay.	1 headquar- ters motor command.		2 motor transport companies.		1 motor cycle company.		1 service park unit.		Total.	
		Men.	Pay.	Men.	Pay.	Men.	Pay.	Men.	Pay.	Men.	Pay.
Technical or first sergeant.....	\$53	1	\$53	2	\$106	1	\$53	1	\$53	5	\$265
Staff sergeant.....	45	1	45							1	45
Sergeant.....	45			12	540	5	225	1	45	18	\$10
Corporal.....	37	1	37	8	396	4	148	1	37	14	518
Private, first class.....	35	1	35	22	770	9	315	5	175	37	1,295
Private.....	30	2	60	44	1,320	17	510	10	300	73	2,190
Total.....		6	230	88	3,082	36	1,251	18	610	148	5,123
Additional for special rating:											
First class.....	25							2	50	2	50
Second class.....	20							2	40	2	40
Third class.....	16							1	16	1	16
Fourth class.....	12			4	48	2	24	5	60	11	132
Fifth class.....	8			12	96			1	8	13	104
Sixth class.....	3	3	9	48	144	24	72	2	6	77	231
Total.....			9		288		96		179	108	\$72
Aggregate.....			239		3,320		1,347		789		5,686

Mr. ANTHONY. How are those trucks and automobiles operated, by enlisted men?

Gen. CONNOR. By enlisted men who belong to the divisions. Everything except motor vehicles belong to the regiments, by the motor transport companies, a few are assigned to the regiments are operated by regimental personnel themselves. In every case they are operated by enlisted personnel belonging to the division.

Mr. ANTHONY. What is the total number of the personnel that it will require to operate this motor transport that goes with a division?

Gen. CONNOR. I will put that in the table with the information you have just asked for.

MOTOR VEHICLES TURNED OVER TO OTHER GOVERNMENT DEPARTMENTS.

Mr. ANTHONY. How many motor vehicles have been turned over to other departments of the Government?

Gen. CONNOR. Approximately 35,000 in all. The major portion of them were turned over to the Bureau of Public Roads of the Department of Agriculture, say two-thirds of them have been given to the Bureau of Public Roads, and about one-quarter of them given to the Post Office Department, and the rest to various other departments of the Government, under authority of law.

Mr. ANTHONY. Are you still receiving demands for motor vehicles under the authority which Congress gave you?

Gen. CONNOR. Yes. As rapidly as a surplus is declared we consult with the different bureaus and departments and they are notified of what we have, and in the procedure which has been set up we have them visit the place where the surplus is kept and inspect what they want; after their representative takes his choice, we dispose by sale what is left.

Mr. ANTHONY. Has the War Department now the power to sell any motor vehicle declared surplus?

Gen. CONNOR. Practically not, it consults the various departments before any sale is made, they take those they want and little but scrap is left.

Mr. ANTHONY. Under existing law you first have to satisfy the demand from some other department of the Government before you could sell any of the surplus vehicles for cash?

Gen. CONNOR. We have sold almost nothing for cash except junk.

Mr. ANTHONY. That is because under the law you have had to turn them over to the other departments?

Gen. CONNOR. There is not any doubt about that. First we find out what the requirements of the other bureaus of the War Department or of the Navy Department are. After we do that then we consult the Bureau of Public Roads, which has the first call.

Mr. ANTHONY. What is your judgment as to the best method of disposing of surplus motor vehicles? Would you continue to turn them over to the other departments of the Government on demand, if it is all to be converted into cash?

Gen. CONNOR. I think we ought to turn them over to another department of the Government for the bona fide use of the Government because we would get very little for them by auction sale.

Mr. ANTHONY. Do you not think it adds to the expense of the Federal Government with every automobile you turn over to another department?

Gen. CONNOR. Well, I would not like to indict any other department; but occasionally we do get that reaction, but I have no measure of giving a weighted answer to that question.

Mr. ANTHONY. It has been my observation that many of the counties of the different States which receive large numbers of motor trucks have more trucks on hand than they know what to do with.

Gen. CONNOR. I have heard that, but I have no definite data on the subject.

Mr. ANTHONY. Would you need any additional legislation if it was considered the wisest policy to sell this surplus stock?

Maj. RITCHIE. This disposition is directed by the Kahn Act of March 15, 1920.

Gen. CONNOR. We have turned over approximately \$100,000,000 worth of motor transport vehicles to the different departments, and approximately seven or eight million dollars worth of spare parts, that is, as original value.

MOTOR TRUCKS AND AUTOMOBILES NOT YET DECLARED SURPLUS.

Mr. ANTHONY. How many motor trucks and automobiles have you on hand not yet declared surplus?

Gen. CONNOR. Approximately 68,000 vehicles, of which we have recommended 20,000 to be declared surplus.

Mr. ANTHONY. Unless Congress takes some action giving you authority to dispose of those by sale they will probably be turned over to other departments?

Gen. CONNOR. They may not take them all now. They will undoubtedly take the best of them, and only the poorest will remain for sale.

Mr. ANTHONY. If the Army needs more motor trucks, are those trucks that you have now in storage in your reserve good trucks for use?

Gen. CONNOR. Yes; they are excellent trucks. We would have about 7,300 trucks, which is a reasonable reserve.

Mr. ANTHONY. Of these you have held in reserve, are they the so-called standard type?

Gen. CONNOR. They are all the standard type. The nonstandard machines have been practically all disposed of or are in process of being disposed of.

Mr. ANTHONY. Is the so-called standard type being manufactured by any manufacturer in this country?

Gen. CONNOR. Not at the present time.

Mr. ANTHONY. What provision would there be for spare parts?

Gen. CONNOR. There are certain firms that built them during the war and are still prepared to supply the spare parts.

Mr. ANTHONY. If you were called upon to put them in use you would have difficulty in getting the spare parts, would you not, in case of a future war?

Gen. CONNOR. In a future war if we use the same trucks there would have to be a firm organized for such manufacture.

Mr. ANTHONY. Would it not be more practical if the Government depended on the types that are used commercially, that are in common use?

Gen. CONNOR. I was not here when this design of this type of truck came up and I do not know how it came about that we have this special truck. Of course, normally, the answer to your question is yes.

Mr. ANTHONY. Is that standard type to-day considered to be the best truck?

Gen. CONNOR. Of its kind, yes.

Maj. RITCHIE. I think Mr. Anthony's question is ambiguous, so far as the answer is concerned. He asked whether all the trucks retained are of the commercial type.

Mr. ANTHONY. I said standard type.

Maj. RITCHIE. When we refer to the standard type the "Standard B" is the only one of special make which we are retaining, and therefore the other types are commercially manufactured vehicles.

Gen. CONNOR. I thought you were referring to the standard type of the Army truck, "type B."

Mr. ANTHONY. I thought that the greater number of these vehicles you have in storage were of a standard type of truck that the War Department contracted for—an especially designed truck made for the War Department alone.

Gen. CONNOR. That only applies to what we call the three and five ton truck. The normal 3-ton truck is the type B truck.

Mr. ANTHONY. How many of those have you?

Gen. CONNOR. Of that type there will be kept 7,800, and there will be declared surplus about 2,230.

Mr. ANTHONY. Anybody who would buy one of those trucks you have referred to would have difficulty in getting repairs?

Gen. CONNOR. Yes, they would have difficulty.

Mr. ANTHONY. That leads up to my other question, would it not be better for the War Department to utilize the regular commercial type of truck?

Gen. CONNOR. Not knowing what their difficulties were, I would hesitate to say that. Normally I would say that a commercial article that is used continually for a long time is a better article than a special one.

Mr. ANTHONY. In your opinion, is the Army using more motor transportation at the present than it has any need for?

Gen. CONNOR. Yes, I think so, and it always has.

Mr. ANTHONY. How could we curtail that expense?

Gen. CONNOR. What has curtailed it most is the cutting down of the gasoline. That has reduced the operation materially. Everybody got used to motor transport in the war, and I do not think good judgment is used at all times in all places as to the proper vehicle to use for transportation either of troops or of property.

Mr. ANTHONY. I have been around Army posts a good deal recently, and I do not think there is much joy-riding in Government automobiles.

Gen. CONNOR. I think that has been cut down very materially. I said bad judgment.

Mr. ANTHONY. I think where they have motor trucks for use everywhere they use them for trivial purposes.

Gen. CONNOR. I do, too, and we are attacking that in every way possible. We have written within the last few months to the commanding officers of the different corps areas impressing on them the fact that discipline is the very thing to stop this with, and if they get discipline in their organizations they can control the motor transport people just as they do the Infantry, and by control of them they will keep the speed down and by having the best discipline in the other parts of their organization it will keep them from misusing and over-using motor transportation.

CONDITION OF VEHICLES IN STORAGE AND IN THE OPEN.

Mr. ANTHONY. What is the condition of the motor-drawn vehicles you now have in storage?

Gen. CONNOR. We have enough to make this supply I spoke about, i. e., with troops and in reserve, practically all new vehicles or vehicles in first-class condition.

Mr. ANTHONY. Are the motor trucks and automobiles that are new and have not been used, now in storage, held in reserve or surplus, all under proper shelter?

Gen. CONNOR. The better ones are, I think. The whole question of storage has been gone into and we have had to balance two or three things. These are, the value of the vehicle, the cost that would be involved in covering them, and the amount of funds we had on hand. I will say that wherever storage facilities exist, of any kind, the vehicles are under cover.

Mr. ANTHONY. Are there any automobiles or trucks purchased during the war that are new and that have never been used now standing exposed to the elements?

Gen. CONNOR. I should say in all probability there are. Take the amount we have in storage. There would be 58,000 of the total I gave you under cover and about 10,000 that are not under cover.

Mr. ANTHONY. To be specific, a subcommittee of the House of Representatives went to Camp Holabird last year and there we saw great piles of packing boxes, each box containing a truck or an automobile, piled up in the open. Are those still in the open there?

Gen. CONNOR. At Camp Holabird we have approximately 3,000 vehicles in open storage. All of those vehicles are slushed with a heavy oil all over the machinery and the machine parts. Then the hood and the machine part is covered with paulins.

Mr. ANTHONY. That is where the automobiles have been assembled. I refer to the ones in the packing boxes.

Gen. CONNOR. I think those in the packing boxes are practically all trailers and they have no operating parts. I was over there six or eight weeks ago and those are roofed over to turn the rain off the top. There are no vehicles with machine parts in that open storage. We have done our best to get everything under storage.

Mr. ANTHONY. You are convinced that the vehicles still in the packing boxes are protected from the elements?

Gen. CONNOR. To the best of our ability, and if we had shelter we would put them under shelter. I would say that the value of the vehicles not under cover would be about \$14,000,000.

Mr. ANTHONY. You say there are 3,000 vehicles at Camp Holabird assembled and standing in the open there?

Gen. CONNOR. Yes, sir.

Mr. ANTHONY. Is not that an awful waste, to permit them to stand out in the open year after year?

Gen. CONNOR. We have been expecting to get them declared surplus and get rid of them.

Mr. ANTHONY. Why are not they declared surplus, and if you have not got the authority to sell them, why is not authority asked to sell them?

Gen. CONNOR. We have been recommending that the ones we do not have use for be disposed of, but until the tables of organization

were fixed and they came to a determination of what the organization of the Army was to be, and based on that, to decide the number of vehicles they would keep and the number they would have in reserve, they have not been prepared to give us a policy.

Mr. ANTHONY. Would it not have been good business policy to have sold these automobiles that are surplus two years ago?

Gen. CONNOR. Yes, I think it would; but Government agencies move more slowly than business concerns because there are so many different interests to consult.

Mr. ANTHONY. If we want those 3,000 automobiles standing in the open air at Camp Holabird sold, we have got to make legislative provision for that?

Gen. CONNOR. No, I think not. I think the thing is under way now. We have made our recommendations, and I understand the project is entirely acceptable to the General Staff and that we are on the point of receiving instructions to dispose of the 20,000 surplus.

Mr. ANTHONY. Does the General Staff pass upon a business proposition of that kind?

Gen. CONNOR. They would pass on the number of them to be retained, and when that is settled on, and when a decision as to the amount of surplus, they indirectly would approve of the disposition of it.

Mr. ANTHONY. So if there is a large quantity of war material under the control of the Quartermaster Corps that is deteriorating in value, you do not dare take steps for the disposition of it until you consult the General Staff?

Gen. CONNOR. No; it would not be good business policy, because it may be that that is a kind of property that would be desired by some other department and we keep in touch with everybody so far as we can.

Mr. ANTHONY. Does not that practically amount to operating by the General Staff, if you defer to them in business matters?

Gen. CONNOR. No; I should say it would be cooperation, because otherwise the Quartermaster General in this case would have to consult all of the different agencies about what they wanted of the different kinds of property. He would have to consult the Chief of Infantry to see what the Infantry wanted, the Chief of Field Artillery to see what the Field Artillery wanted, and so on, whereas the General Staff centralized at the head decides how many are needed, how much shall be in reserve, and how much it is desired to declare surplus.

Mr. ANTHONY. Then it means that none of the business bureaus of the War Department can take action in a matter of this kind until it is initiated by the General Staff?

Gen. CONNOR. No; they can initiate the thing, but they can not take final action until there has been a decision that their action can go on independently of all other agencies, or it has been decided that their action can be correlated with the other agencies and go on without detriment to any other.

Mr. ANTHONY. If one of the bureaus of the War Department takes action of this kind, can that action be negatived by the General Staff?

Gen. CONNOR. Yes; if, for instance, they should start out to declare 40,000 of these motor vehicles surplus, that undoubtedly would be disapproved and we would be told to stop until the thing had been thought over and settled as to what the actual surplus was, because that would be ill-advised action.

FOR DISPOSITION OF SURPLUS VEHICLES.

Mr. SLEMP. You said a movement was on in the War Department to clear this matter up. What did you mean by that?

Gen. CONNOR. I said that steps had been taken and that the surplus is practically agreed upon.

Mr. SLEMP. What are the facts about that?

Gen. CONNOR. That there will be 28,000 vehicles, including about 8,000 bicycles, which will leave 20,000 motor vehicles which will be declared surplus, and we will dispose of them.

Mr. Sisson. Let me ask you a question about the General Staff. Of course, responsibility has to be fixed. If I had my way I would fix the responsibility on Gen. Rogers and then I would feel absolutely certain that it would be properly handled. Is not the Secretary of War authorized under the law to have the last say in these matters?

Gen. CONNOR. Yes, sir.

Mr. Sisson. Why not fix the responsibility on the Secretary of War to dispose of all these as quickly as possible?

Gen. CONNOR. That is what it practically amounts to. When I say the "General Staff," I mean the Secretary of War acting through the General Staff.

Mr. Sisson. Let me show you what we have gotten ourselves into by this policy of delay, and, for the lack of a better term, what we may call buck passing in reference to the automobiles and trucks. The market was such up to a year ago that it would have absorbed practically all of these motor vehicles. But it is in such condition now that it is extremely doubtful whether you could dispose of the material at anything like decent prices. We may have gotten ourselves into a condition where it would really be more economical to hold on to this material. I know for a year we have been making an effort to find out first how many of these vehicles we have, and it took a long time to do that.

After we found out how many we have, another difficulty has arisen as to how many we can dispose of. It always is traced back to the General Staff. It is only at this hearing that we have had any accurate information about how many they wanted to keep. It seems to me that at the present time we will have a great deal of difficulty in disposing of this material.

Gen. CONNOR. Yes; undoubtedly.

Mr. Sisson. Have you any idea about what time this surplus might be disposed of?

Gen. CONNOR. I think within the next few days we will have a release on the surplus that is declared.

Mr. Sisson. I would not want you to assume a responsibility that would be in the least embarrassing, but it seems to me you are retaining a tremendous amount of this stuff, about 40,000 vehicles, as I have gathered from your testimony.

Gen. CONNOR. Yes.

Mr. Sisson. To be kept by the Army either in reserve or in actual use?

Gen. CONNOR. A little more than 40,000.

Mr. Sisson. Then if we have an Army of 150,000 men we would have an average of one motor-propelled vehicle for every three and a half soldiers, either an automobile or a truck, and to a layman that looks like a great deal.

Gen. CONNOR. When you have these trucks it is foolish to sell them if you are going to have any use for them within 10 or 15 years. The price we would get for them would be very small.

Mr. Sisson. I think there might be a doubt as to whether that adjective you used is a little strong, when you spoke of its being foolish. If you are going to have such material that you will keep for 10 or 15 years I do not know what interest the Government is going to finally have to pay on the money. But the probability is that the next Congress may have to resort to some drastic methods to sell bonds to pay some of the maturing obligations. I do not know what this material would bring now, but if we could get a million dollars out of it, it would relieve the situation very much, and if the General Staff, or the Secretary of War——

Mr. SLEMP (interposing). They are synonymous terms, are they not?

Gen. CONNOR. The Secretary of War could not deal with all these questions personally; he has his agents who examine the thing and make recommendations. It is all done in his name.

Mr. Sisson. I would like to find out where there would be some responsibility.

Gen. CONNOR. The responsibility is pretty well lined up.

Mr. ANTHONY. It is pretty well centered in the General Staff, is it not?

Gen. CONNOR. Yes, it is bound to be.

Mr. Sisson. I would like to have one individual responsible, instead of a body, indefinite and indefinable in number, so that you do not know whether action is taken by a majority vote of the General Staff, or whether the Secretary of War does it; the thing is up in the air.

Gen. CONNOR. If, on the other hand, Gen. Rogers had to do it he would have to have a similar machine or agency that would come in contact with all the different departments, and he being a department chief himself has not now the means of doing it.

Mr. Sisson. Do you not believe that each of the organizations would naturally keep very confidential, so that they would not be subject to any newspaper criticism?

Gen. CONNOR. What organizations?

Mr. Sisson. The various organizations that want this material? It is the natural thing to do. Somebody has to determine the policy aside from the organization itself.

Gen. CONNOR. The law lets them decide it.

Mr. ANTHONY. In the reorganization act, as I understand the act, we tried to put the responsibility for the conduct of the business of the Army upon the Assistant Secretary of War. Our theory was that all business communications would flow from the chiefs of bureaus to the Assistant Secretary, and that all purely military matters would go through the Chief of Staff.

Gen. CONNOR. I think all supply matters go to the Second Assistant Secretary of War.

Mr. ANTHONY. As a matter of fact, all matters, both business and military, go to the General Staff, under your present method of conducting the business of the Army.

Gen. CONNOR. No, I think the Assistant Secretary handles certain lines of the work.

Mr. ANTHONY. Do those matters go direct to him, or through the General Staff?

Gen. CONNOR. That is supply. I have nothing to do with supply matters at all.

Gen. ROGERS. I think most of the supply matters go through the supply division of the General Staff.

Mr. ANTHONY. Do you get orders as to the conduct of your department in relation to matters of supply from the Assistant Secretary of War or through the General Staff?

Gen. ROGERS. I think some come from the Assistant Secretary of War, but the majority come through the supply division of the General Staff.

Mr. ANTHONY. The supply division is a committee of the General Staff, is it not?

Gen. CONNOR. It is a branch.

Mr. ANTHONY. And it is virtually superimposed over your bureau?

Gen. CONNOR. It is a section of the General Staff.

Mr. ANTHONY. It goes directly contrary to a provision of the reorganization act, in my opinion.

TRUCKS, ETC., AT CAMP HOLABIRD.

Gen. ROGERS. I would like to make a statement in regard to those trucks you spoke of at Camp Holabird. We are now planning to put those trucks in closed storage in what they call the Canton warehouse in Baltimore. We are releasing that warehouse as a supply warehouse and we are planning to use it for motor-vehicle storage.

Gen. CONNOR. I had figures made up on the cost of covering all these, and the most temporary shelter we could make for the trucks would cost approximately \$2,000,000, and we did not have the \$2,000,000, and the \$2,000,000 as against the value of the trucks—\$14,000,000, and the difference in actual protection between the covered storage we could get for that amount and the paulin cover did not make it a good money proposition to build the storage.

Mr. ANTHONY. Would not ordinary business judgment in the face of such conditions, in the face of such conditions where the property in question was deteriorating very rapidly in value, point to the necessity of immediate disposition of those trucks?

Gen. CONNOR. Yes; but at the same time they did not have the reorganization act until June, and after that it took some time to decide on the organization. The whole thing moves very slowly and after the Army reorganization act was passed in June they had to get together and decide what the organization and equipment of the Army would be.

TRUCKS, ETC., AT CAMP JESUP.

Mr. ANTHONY. We have been talking about the condition of the motor transport at Camp Holabird. You have other motor-transport centers. There is one at Camp Jesup.

Gen. CONNOR. Yes.

Mr. ANTHONY. What are the conditions there? Are there a considerable number of trucks in open storage there?

Gen. CONNOR. You have selected the next worst one. Camp Jesup has about 1,500 motor vehicles in open storage and about 1,300 in closed storage. Those are the two biggest centers where we have vehicles not under cover. At Camp Normoyle, where three months ago they were all in the open, we have by using local labor gotten them all under cover at the present time.

Mr. ANTHONY. Have you put them into the new building authorized in the last appropriation act?

Gen. CONNOR. The hangar?

Mr. ANTHONY. Yes.

Gen. CONNOR. Nineteen have been put up at Camp Normoyle.

Mr. ANTHONY. When we were there we found that a contract existed for the construction of an additional building for the Motor Transport Corps, and we authorized its completion. Has that been completed?

Gen. CONNOR. Yes, sir. That was for a power plant, but either that or another building has been completed, because we recently got a report that all the vehicles at Camp Normoyle were under covered storage.

Mr. ANTHONY. You have another establishment at Columbus, N. Mex., on the border, have you not?

Gen. CONNOR. No; at El Paso.

Mr. ANTHONY. There is a repair shop at Columbus, is there not?

Gen. CONNOR. If there is, it is a local concern.

Gen. ROGERS. There was one there during the Mexican trouble.

Mr. ANTHONY. How extensive a motor transport establishment have you at El Paso?

Gen. CONNOR. At El Paso we have Camp Boyd, and we have there approximately 1,400 vehicles. We have there a small school repair shop, and there all the vehicles are reported as being in covered storage.

MOTOR EQUIPMENT TRANSFERRED TO OTHER GOVERNMENT ACTIVITIES.

Mr. Sisson. We passed a law providing that where any of this war material was on hand, such as desks, typewriters, automobiles, and other articles of that kind, and we appropriated in the bill for the purchase of automobiles or typewriters or furniture. If any of that is on hand, that money appropriated should simply be transferred to the credit of the particular property which would be requisitioned from the War Department. It was necessary to do that to control the number of automobiles or the amount of furniture each department may get, and that also gives your department a book credit for that amount of money. When the requisition is made upon you

for any of the supplies from any of the civilian departments of the Government, you do not turn any of it over unless they give you that book credit or pay you for it?

Gen. CONNOR. I do not believe we have ever gotten any credit for these motor vehicles turned over.

Mr. Sisson. That was under the Kahn Act with reference to the disposition of road machinery. Those were donations to the States and counties to be devoted to the building of good roads, and where under the good roads act the Government was assisting the States and counties, to a certain extent they would have the right to requisition a certain amount of this war material to be used in the building of good roads. All the other departments of the Government, as I recall, had to pay for it. I was wondering whether or not any requisitions of that kind have been made and if that law has been strictly complied with.

Maj. RITCHIE. That has been done in the case of the Commissioners of the District of Columbia, the Bureau of the Census, the Department of the Interior, the Treasury Department, and the Department of Labor.

Mr. Sisson. Those were the matters I had in mind. How much of that kind of property have you disposed of?

Maj. RITCHIE. For instance, in the case of the Commissioners of the District of Columbia, we have only sold them three Ford touring cars.

Mr. Sisson. I wish you would put in the record an itemized statement of the number of cars you furnished to each of these departments. You have nothing to do with the furniture and other articles of that kind?

Maj. RITCHIE. No, sir; only motor vehicles.

Gen. CONNOR. The two big items of that kind were 24,500 vehicles for roads bureau——

Mr. Sisson (interposing). That is the number of vehicles?

Gen. CONNOR. Yes; and 8,000 for the Post Office Department, making a total of almost 33,000 vehicles out of a total of 34,700 that they get nothing for, so that our return on those motor vehicles is practically nil because on the two big items the departments get them for nothing.

(The statement above referred to is as follows:)

Motor transport equipment transferred to other government activities by Quartermaster Corps up to including Nov. 16, 1920.

	Bureau of Public Roads.	Post Office Department.	Public Health Service.	Camp Community Service.	Food Administration.	Superintendent of State, War, and Navy Building.	Department of Labor.	Agriculture Department.	Reserve Officers' Training Corps.	Department of Commerce.	Engineer Corps.	Other departments (see note).	Commissioners of District of Columbia.	Interior Department.	Treasury Department.	Housing Corporation.	Navy and Marine Corps.	Total.
Ford touring...	1,685	2,248	285	39	.....	.....	1	.....	3	.....	20	1	3	92	.....	.....	.....	4,377
Miscellaneous American cars.....	1,639	.....	8	.....	8	1	.....	.....	.....	1	1	3	.....	3	.....	1	40	1,703
Ford ambulances.....	722	.....	158	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	882
Ford delivery cars.....	445	371	115	.....	.....	.....	.....	1	.....	1	10	.....	.....	9	.....	2	.....	954
Ford chassis.....	44	436	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	.....	.....	.....	492
G. M. C. $\frac{1}{2}$ -ton..	669	751	16	.....	.....	.....	.....	.....	.....	4	21	.....	.....	5	.....	.....	57	1,523
Commerce trucks.....	80	1,346	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,443
Miscellaneous 2-ton.....	662	413	9	.....	.....	.....	.....	.....	.....	.....	13	1	.....	3	.....	.....	4	1,105
Pierce-Arrow 2-ton.....	882	251	5	.....	.....	.....	.....	.....	.....	1	1	.....	.....	2	.....	.....	1	1,143
Light aviation.....	696	661	139	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,496
Miscellaneous 3-ton.....	3,354	47	13	.....	.....	1	.....	.....	.....	.....	2	8	.....	1	3	10	46	3,485
Packard 3-ton..	1,132	70	4	.....	.....	.....	.....	.....	.....	.....	8	.....	.....	1	.....	.....	72	1,287
Heavy aviation.....	1,587	163	149	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	58	1,957
Nash Quads.....	7,059	13	200	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	.....	.....	25	7,306
Ambulances.....	351	.....	7	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	359
Staff observation.....	13	15	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	3	35
Miscellaneous 4 and 5 ton...	923	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	3	.....	.....	929
M/C—Indian.....	.....	1,057	254	.....	.....	.....	.....	.....	.....	3	4	4	.....	.....	.....	.....	56	1,378
H/C—Harley-Davidson.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	49	51
M/C—Cleveland.....	159	31	.....	.....	.....	.....	.....	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	197
Miscellaneous light deliveries.....	325	15	3	.....	.....	.....	.....	.....	.....	.....	2	3	.....	.....	.....	.....	8	356
Miscellaneous tanks.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	.....
F. W. D.....	2,104	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	60	2,165
White $\frac{1}{2}$ -ton chassis.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	51	51
Trailers.....	.....	101	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	102
Total.....	24,531	7,969	1,385	39	8	2	1	1	3	10	98	20	3	137	6	13	539	34,788

SALE OF UNSERVICEABLE VEHICLES.

Mr. ANTHONY. You said that you felt that you did not have authority to make sales of motor vehicles under present conditions. But the Army has been selling motor vehicles, has it not?

Maj. RITCHIE. Only unserviceable vehicles, and the total is about 9,200 to date.

Mr. ANTHONY. That is, those vehicles that have been passed for sale and have first been declared unserviceable?

Maj. RITCHIE. Unserviceable, and rejected by the departments and then sold.

Gen. ROGERS. I would like to call attention to the recommendations we have made for about a year past to transfer unserviceable vehicles from organizations, where we have not been able to repair

them, and put serviceable vehicles in their places. That would enable us to sell unserviceable vehicles that have been held by these organizations. That has been approved?

Gen. CONNOR. That has been approved; yes.

Mr. SISSON. What would be classified as an unserviceable car?

Gen. ROGERS. I think there is a certain percentage of value, 35 per cent.

Maj. RITCHIE. After a vehicle costs more than 35 per cent of its original cost to be repaired, we declare it to be unserviceable.

Mr. SISSON. That is your standard?

Maj. RITCHIE. Yes, sir.

Gen. ROGERS. Under the law we can sell only unserviceable vehicles.

Mr. SISSON. Who fixed that percentage of 35 per cent of the original cost as the standard of rejecting a vehicle?

Gen. CONNOR. Some expert officers.

Mr. CRAMTON. If either now or after that 28,000 or 20,000 vehicles are declared surplus, the Commissioners of the District of Columbia, being authorized by us to buy, say, new motor vehicles, come to you to buy them, what is the procedure?

Gen. CONNOR. The turning over would be either authorized by law——

Mr. CRAMTON (interposing). We make an appropriation for that purpose. What will be the price fixed at which they must purchase those vehicles?

Gen. CONNOR. They would probably want a brand new vehicle and the price would probably be the price at which we acquired it, and the funds would be transferred from the appropriation.

Mr. CRAMTON. I am speaking now of motor vehicles in this lot of 20,000 being declared surplus. They come to you, being authorized by us to buy new ones and required to get them from you, if possible. How will the price you sell the vehicles for compare with the price they would have to pay the manufacturer for a new vehicle?

Gen. CONNOR. I think our prices are in all cases less than they could buy them for even to-day with the reduced prices.

Mr. CRAMTON. The complaint that these other branches of the Government make—and it does not apply only to motor vehicles, but to everything else that we prefer them to buy from the branch of the Government that is overstocked with them—is that they have to pay as much or more than they would have to pay for new ones from the manufacturer, and that they will not be in running order in many cases.

Gen. CONNOR. I can hardly believe that. We rate our closed Dodge cars at \$970, and I know they can not buy the closed Dodge car for much less than nearly double that in the open market.

Mr. CRAMTON. I would be glad for the record to show the principal classes of vehicles that are available that come under the head of new vehicles and that will be available when the 20,000 are turned over and the prices at which those would be sold to other Government departments.

Gen. CONNOR. I have a table that shows that.

Mr. CRAMTON. We have authorized a number of new vehicles in the District bill, and I would like to check them, and if they do not buy them from you I would like to know why.

(The matter above referred to is as follows:)

	Oct. 31, 1920, inventory.	Surplus declared.	Vehicles now assigned to a division.	Vehicles assigned under reorgani- zation.	Average unit cost of vehicles, new.	
Passenger cars.....	4,489	216	84	77	\$900	Dodge.
Light trucks.....	33,922	6,850	445	369	2,600	Cadillac.
Medium trucks.....					1,500	Light truck.
Heavy trucks.....					2,600	Medium truck.
Ambulances.....	2,445	.....	83	.....	3,800	Heavy truck.
Trailers.....	15,381	8,401	54	9	1,725	
Motor cycles.....	10,505	3,985	309	208	800	
Bicycles.....	13,668	8,769	323	.....	400	
Special design.....	1,320	.....	171	.....	35	
					(?)	

NOTE.—No new vehicles will be available as surplus. Price of vehicles to be sold to other departments would be determined by a board of officers passing on actual amount of depreciation from original value.

MAINTENANCE OF TRUCKS AND MOTOR VEHICLES.

Mr. SLEMP. What item in your list refers to the maintenance of trucks and motor vehicles?

Gen. CONNOR. I think it is under different items, from 1601 to 1609, for different types of vehicles.

Mr. SLEMP. What does it cost, and how do you arrive at the cost of maintaining a truck or automobile in storage, which is not being used at all?

Gen. CONNOR. There is very little maintenance for vehicles in storage.

Mr. SLEMP. In other words, you put one of these motor trucks that has not been taken out of the box inside of the building. Has the Government any expense for maintenance in connection with that?

Gen. CONNOR. We have very few of that kind. Most of the trucks are set up, and most of the expense is for slushing the machinery three or four times a year with heavy oil, and I should say that would not run over \$25 or \$50 a year for each vehicle.

Mr. SLEMP. Have you checked that up?

Gen. CONNOR. I can figure that out.

Mr. SLEMP. It would not be very large, would it?

Gen. CONNOR. No; it is a very small amount.

Mr. SLEMP. You would not want to go over it more than once a year, would you?

Gen. CONNOR. Yes; three or four times a year.

Mr. SLEMP. You would not want to run the machinery any?

Gen. CONNOR. No; we do not run the machinery.

Mr. SLEMP. You just oil and grease it?

Gen. CONNOR. We just oil and grease it.

Mr. SLEMP. What is the total amount of the maintenance item you have in your estimate?

Gen. CONNOR. It is all grouped or set up under a total figure for maintenance of vehicles or maintenance of shops, not separated under vehicles in storage and vehicles in operation.

MOTOR TRANSPORT SCHOOLS.

Mr. ANTHONY. How many motor transport schools are there?

Gen. CONNER. We have five operating under the Quartermaster General's office, but in addition to that there are motor transport schools at almost every big camp and station in the Army.

Mr. ANTHONY. Where are your principal schools?

Gen. CONNER. The principal ones are at Camp Holabird, Camp Jesup, Camp Normoyle, Camp Boyd, and at San Francisco.

Mr. ANTHONY. What is the purpose of these schools, primarily to keep the motor transportation of the Army in repair, and at the same time to furnish instruction?

Gen. CONNER. I will put it the other way. It is primarily for instruction, and by the system under which we operate them, instead of teaching a man to turn up an ordinary piece of steel that is no good, we teach him to turn up a nut or a bolt or something that is of some use, and when he finishes it we check it up with the dies and if it is all right we put it in stock, and thereby we reduce our cost of operation of the schools by what we produce and can put into stock.

Mr. ANTHONY. How many enlisted men have you in the Motor Transport Service?

Gen. CONNER. There are authorized 6,184, but we still have in the service a number of men whose enlistments have not run out, men from the excess number we had before, and the actual number to-day. I should say, is no more than about 500 in excess of the authorized strength. As soon as their enlistments expire we will drop to a figure of about 6,200.

Mr. ANTHONY. You have had more than is authorized in the Motor Transport Service, because that was one of the popular branches that came to you in the consolidation?

Gen. CONNER. It was a hang over from the war. Take the situation a year ago. We had 14,400 enlisted men in the Motor Transport Corps. We could not get rid of them until their enlistments expired, and while authorized to have 6,184, they have not gotten down to that number in the course of the reduction. It was formerly a separate corps.

Mr. Sisson. You say you could not get rid of a man until he had served his time.

Gen. CONNER. It is not the policy to physically transfer a man against his will to another branch of the service.

Mr. Sisson. Could you not give him an honorable discharge from the service?

Gen. CONNER. Those are regulated more or less by law, I think. A man enlists for a certain number of years.

Mr. Sisson. Then that law ought to be changed, if you have more men than you need.

Mr. CRAMTON. Is it not a fact that if men make application for discharge and set up the grounds, that they are held to the same rules of extreme dependency, and so forth, in a service such as yours that does not need them, just as in other branches of the service?

Gen. CONNER. No; I should rather doubt that.

Mr. CRAMTON. Unless a man can show that somebody is going to die if he does not get home, he can not get out.

Gen. CONNER. Papers on that subject would not come to me.

Mr. DENT. That is the rule, and I have had some cases like that. There are only two grounds on which they will discharge a man.

Mr. CRAMTON. Is it not a fact that in your branch of the service in which you have more men than are authorized by law, if a man wants to get out and gives good reasons as to the urgency or the necessity of his discharge, so that he can go where his services are really needed, his application is refused?

Gen. ROGERS. I think you will find that is due to a state of war. I think in peace times they are allowed to purchase their discharge.

Mr. Sisson. Suppose you did not need the man; you would be relieved of the expense.

Mr. ANTHONY. That is a matter of regulation, anyway, is it not?

Mr. CRAMTON. You are above your authorized strength in the Motor Transport Corps, and a little leniency would help to get down to that authorized strength.

Gen. LORD. There is no law that prevents the discharge of a soldier prior to the expiration of the enlistment in regular order. He has enlisted for a specified time unless discharged prior to that date by competent authority.

Mr. Sisson. Suppose a soldier wants to get out—and I am not insisting that when a man enlists and makes his arrangements for a certain number of years that you deal fairly with him by just arbitrarily putting him out of the service—but here is a man who wants to get out, and you have more than your authorized strength. Instead of holding that man by regulation, as suggested by Mr. Dent, the regulations could be changed so you could discharge him. Many young men write to their Congressmen in trying to get out of the Army, and we take the matter up and find that there are only one or two grounds on which they are allowed to get out.

Mr. DENT. One is dependency and the other is the fact that a man enlisted before he is 18 years old.

Mr. ANTHONY. You said you have 6,000 men in the Motor Transport Service. Of that number how many are attending the Motor Transport schools?

Gen. CONNOR. The present policy is to send them to the Motor Transport schools on their enlistment and make them go through a course of instruction. At the present time we have about 730 men at different schools.

Mr. ANTHONY. Is it the idea to utilize these men as they receive their training to take the place of the civilian employees?

Gen. CONNOR. Not with the decrease we have had in the Motor Transport Corps. We have rather increased the civilian employees because our force in the Motor Transport Corps was 14,000 a year ago and now it is only 6,184.

Mr. ANTHONY. Do you get the benefit of the services of these men as they become expert mechanics, or do they leave the Army?

Gen. CONNOR. Most of them we have on three-year enlistments now and they go out into the organizations and are a great asset as soon as they leave the schools.

HIRE OF CIVILIAN EMPLOYEES.

(See p. 694.)

Mr. ANTHONY. You are asking for \$3,479,000 for the hire of civilian employees in the Motor Transportation Division. What class of men are these?

Gen. CONNOR. Those are mechanics at the different shops and schools. The schools are really great shops for reconstruction and repair work. There are a great many of them who are drivers of trucks and different vehicles at places outside of Army posts, and it is also for the overhead that is necessary at the different schools, shops, and posts having to do with motor transport.

Mr. ANTHONY. In the first place, you are going to put in the record the itemization of these different parts of the transportation paragraph?

Gen. CONNOR. Yes.

Mr. ANTHONY. In addition to that will you classify the civilian employees also?

Gen. CONNOR. I simply have the lump number here.

Mr. ANTHONY. Will you give us a statement in the record showing how many are mechanics, how many are motor truck drivers, etc.?

Gen. CONNOR. Yes, sir.

(The statement above referred to is as follows:)

Statement showing number, classification, and salary of civilian employees for Motor Transport Division.

	Trans- portation Service.	Quarter- master Corps.		Trans- portation Service.	Quarter- master Corps.
136 instructors.....	\$2,500	\$340,000	398 chauffeurs.....	\$1,200	\$477,600
212 clerks.....	1,700	360,400	229 laborers.....	900	206,100
104 foreman mechanics.....	1,800	187,200			
883 auto mechanics.....	1,560	1,377,480	Total.....		3,000,000
65 motorcycle mechanics.....	1,400	91,000			

Gen. ROGERS. I would like to state to the committee that it is my desire to have all of the motor transport employees at depots, where we now have only civilian personnel outside of motor transportation. civilians instead of having enlisted men. I think it would be more efficient to have the civilian personnel at the depots so that in case of war there would be no change and they would not have to take any soldiers away from depots.

Mr. ANTHONY. On the side of economy, which costs more to the Government—a civilian truck driver or an enlisted man?

Gen. ROGERS. I know of one case in Philadelphia where it is shown that the civilian personnel who would handle the trucks there will be much more economical than enlisted personnel at that particular point.

Mr. ANTHONY. I suppose at military posts, where you have quarters for enlisted men, it would be cheaper to have enlisted men?

Gen. ROGERS. Yes.

Mr. ANTHONY. And around large cities, where you have no accommodations in barracks for the enlisted men, it would be cheaper to have civilians?

Gen. ROGERS. Yes.

Mr. CRAMTON. But if, having an authorized strength for the Army of 175,000, all the duties that might be possibly performed by soldiers were transferred to civilians, so that the Army has 50,000 civilians doing work that might be done by soldiers, it really gives you an authorized strength of 225,000 instead of 175,000, does it not, and hence the economy is not just a question of comparison of what the civilian would cost as compared with the soldier, but the comparison should be what a civilian and a soldier would cost as compared with a soldier, because you are maintaining the soldier anyway?

Gen. ROGERS. There are two sides to that.

Mr. CRAMTON. I would like to hear the Army side.

Gen. ROGERS. The Army side of it is this: The Quartermaster Corps, or the civilian force of the Quartermaster Corps, was originally established to perform the duties ordinarily performed by soldiers on fatigue. There was great criticism years ago that they used to make the soldiers cut the grass around a post and things of that kind, and the Quartermaster Corps was established to take the place of what they called army service troops in foreign armies, to do the work that these service troops do in other armies. That is what we are supposed to do, so that the soldier can be a real soldier and perform military duties properly.

Mr. Sisson. I think it would be a good thing to have a soldier doing a little service other than drilling.

Gen. ROGERS. There was great criticism years ago because soldiers when they enlisted to be soldiers, line troops, were put on this work that is now supposed to be performed by Quartermaster Corps enlisted men.

Mr. CRAMTON. We are not talking about cutting grass around Army posts by men who enlisted as soldiers or a man who enlists for the Motor Transport Corps. Suppose one of them drives a truck; is that interfering with the proper discharge of his duties in the service?

Gen. ROGERS. No; that is part of his duty. At all these division posts, the plan is, so far as the Quartermaster Corps is concerned, to make use of all Quartermaster Corps troops which are assigned to a division to do the duties of the Quartermaster Corps of that division in camps, so it saves the necessity of civilian truck drivers at the division camps. Wherever there are soldiers they do not have civilians.

Mr. SLEMP. Suppose you had no appropriation at all for the civilian help. What would you do in operating your motor transports?

Gen. ROGERS. We would simply use soldiers as far as they would go, or possibly have to hire transportation.

Mr. SLEMP. You would have soldier drivers and soldier mechanics whom you train just for that purpose, would you not?

Gen. ROGERS. You would not have enough to go around for all our activities. We would not have enough soldiers to perform the duties at the camps, the division posts, and the depots and the other activities of the Quartermaster Corps.

Mr. ANTHONY. Is it not largely the case that during the war you supplanted the activities of most of the enlisted men who were doing

the work that civilians now do with civilians, to leave the soldiers free to fight?

Gen. ROGERS. I imagine that was done over here. I was in France at the time.

Mr. ANTHONY. And now, is not the Army rather loath to get back to work in an era of peace?

EDUCATION AND RECREATION OF ENLISTED PERSONNEL.

Gen. CONNOR. We now have the education and recreation and most of these men go to school, and if you put them on such work you would interfere with their education and recreation.

Mr. CRAMTON. If you did not have so much education and recreation they would do more?

Mr. ANTHONY. I think that is all very true. They used to drill the soldier.

Gen. CONNOR. That was all finished at 1 o'clock.

Mr. ANTHONY. He could perform service work or be free for recreation. Now we are going to put him in school for the other half day.

Gen. CONNOR. I speak feelingly on that because you have to prove your case if you are not putting these men in the schools in the afternoon, and that practically takes the entire available garrison for school work in the afternoon and drill in the morning, so you are not justified in putting the number of soldiers on extra or special duty that you used to have. Twenty per cent of the men in the post used to be available for that duty.

Mr. ANTHONY. We have found that the Air Service depends on civilian help before they can fly. We find that practically every one of these departments depends absolutely upon its civilian help to enable it to operate.

Gen. CONNOR. And the number is enormous.

Mr. ANTHONY. Ought not the real Army be able to function without all this civilian assistance? It ought to function in the field without that help.

Gen. CONNOR. It has got to.

Mr. CRAMTON. Fatigue duty was held to interfere with the performance of military duties. Now it is held that the performance of military duties interferes with education and recreation. I suppose the next step in the argument will be that the securing of education interferes with their recreation. That is the logical sequence.

Mr. SLEMP. How long is the school term?

Gen. CONNOR. I do not know what the latest ruling is on that.

Mr. Sisson. The testimony before the committee in reference to recreation has been that it was about two-thirds Army duties and one-third education and recreation.

Mr. SLEMP. How long is the school term?

Gen. CONNOR. When I was at a post, what was contemplated was that the military year would begin on the 1st of April and run until the 1st of November. During those months it was planned to concentrate on military training. Beginning the 1st of November and running to the 1st of April, I think it was, they would concentrate on the educational work.

Mr. SLEMP. So in the case of the 1-year enlistment man it would be about 50-50; that is, about 50 per cent of his time would be spent

in school work and the Government would utilize his services for the other 50 per cent of the time.

Gen. CONNOR. Say four hours in the morning for military work and three hours of educational work in the afternoon. That would be three parts education and four parts military work, or if the other arrangement that I just mentioned, five and seven.

Mr. ANTHONY. In that vocational work of the Motor Transport Division, how much civilian help is necessary to carry it on at the present time?

Gen. CONNOR. You mean the instructor's work?

Mr. ANTHONY. Yes.

Gen. CONNOR. We have 161 instructors for the five schools.

Mr. ANTHONY. Civilians?

Gen. CONNOR. Civilians; yes, sir.

Mr. ANTHONY. What are they, largely mechanics?

Gen. CONNOR. They are experts. We have the schools divided into different parts, to compare with the automobile industry. There are specialists in charge of the chassis work, specialists in charge of the tire work, specialists in charge of the upholstery work, and specialists in the painting shop, and in connection with the carburetors, each man to his own job.

Mr. ANTHONY. In time will we not be able to supplant the civilian employees with either commissioned officers or enlisted men of the Motor Transport Service?

Gen. CONNOR. I am inclined to doubt that. When a man comes out of those schools and becomes a good man, and he is a good man when he comes out of those schools, he can get a good job in civil life, and to be able to get the man you want as an officer is a very difficult proposition. In addition to that, you have to remember that you can always make a choice of your civilians. You can get another one if he is not what you thought he was; however, we are training enlisted men now to replace certain instructors at an early date.

Mr. ANTHONY. Your Motor Transport Corps officers usually become expert mechanics?

Gen. CONNOR. Yes; but there are not enough of them to officer the organizations of the Army that have been provided.

Mr. ANTHONY. In time of peace why could you not dismantle most of the Motor Transport organizations and utilize the officers for other purposes?

Gen. CONNOR. You could, but you would not have an Army.

Mr. ANTHONY. You can organize a motor transport service very quickly.

Gen. CONNOR. The Army would not be balanced.

Mr. ANTHONY. Your educational work would cease preliminary to the declaration of war, and you could put those men in command of truck organizations.

Gen. ROGERS. I would like to modify Gen. Connor's statement to a certain extent. I think eventually we will have at least part of the instructors replaced by the younger officers of the Motor Transport Corps. Some of the men are being educated at the Massachusetts Institute of Technology, and they will come back to be the principal instructors. Only a part of them can be replaced. I would like to have Gen. Connor explain to the committee possibly a little bit more

about the work of the school at Camp Holabird in instructing line organizations so that we may have men coming from the line for instruction.

Mr. ANTHONY. Gen. Connor can make a statement of that in the record.

Training activities at Camp Holabird, Md., Jan. 1, 1921.

Courses conducted.	Special service school.			School of application.		
	Instructors.	Students.	Capacity of class, students.	Instructors.	Students.	Capacity of classes.
Machinist.....		17	60			15
Auto mechanic.....		115	120		25	40
Ignition and carburetion.....		13	40			20
Battery rebuild.....		8	15			20
Tire repair.....			30			20
Blacksmith.....		1	20			20
Sheet metal.....		1	25			20
Woodworking.....		2	20			20
Painting.....		11	30			20
Welding.....		7	34			20
Motorecycle mechanic.....		14	30			20
Warehousing.....		3	60			
Chauffeurs.....		52	120			
Officers' course.....		17	30			
Special course.....		21	30			
Educational class.....		26	30			
Total.....	76	341	714	4	25	57

Percentage of special service school training capacity utilized.....	43.8
Percentage of school of application training capacity utilized.....	2.8
Total in training in Camp Holabird.....	30
Total training capacity in Camp Holabird.....	1,410
Percentage of total Camp Holabird training capacity utilized.....	21.6

The excess of instructors is accounted for by the fact that Camp Holabird schools are utilized to train instructors hired in the vicinity, the instructors being ordered there for a short period of duty before going to other schools. Attention is invited also to the fact that our instructors instruct for eight hours daily, instructors in some other schools instruct for only about one-half that time.

Included in the above figures are 200 enlisted men from other branches of the service (being trained to act as instructors in the various corps area schools and the Medical Department school), 5 officers and 5 enlisted men from the Marine Corps, and 7 officers from the Field Artillery. In addition this school has just completed special training for 7 enlisted men from Recruiting Service, 50 from the Infantry, and 60 from the Cavalry. Arrangements are now being made with the Federal Board for Vocational Training to assist in the work of training ex-soldiers (at a great saving to the Government).

DETAILED INFORMATION OF SUBJECTS AS TAUGHT.

Machinists department course includes shop mathematics, drawing and blue print reading, bench work (chipping, filing, and scraping), machine tool work (lathes, shapers, millers, grinders, etc.).

Ignition and carburetion department course includes drawing (wiring diagrams), mathematics, magneto systems of ignition, battery systems of ignition, starting and lighting systems, fuel and carburetion systems, complete overhaul and rebuild of ignition and carburetion systems, diagnosing of troubles, adjustments, instructions.

Auto mechanics department course includes driving of trucks (heavy cars and light cars), convoy driving and troubles, actual trouble shooting on convoy, records drawing and blue print reading, use of hand tools and measuring instruments, complete assembly and adjustment of motor and accessories systems, complete assembly and adjustment of complete chassis (transmission, axles, steering gear, brakes, etc.) of completed vehicles.

Battery repair and rebuilding department course includes drawing (wiring diagrams), elementary chemistry, lead burning, battery repairs and rebuild, charging and testing, generators, instruments, diagnosing of troubles.

Welding department course includes elementary chemistry, properties of metals, preheating of specimens to be welded, generator of gases used, different types of welding apparatus, welding of various metals by means of oxyacetylene flame, field work with portable welding outfits.

Sheet-metal and radiator repair department course includes drawing, mathematics, geometry, sheet-metal work (mud guard, body, lamps, etc.), radiator repair and rebuild, radiator testing, use of torch for soldering, brazing, etc., repair of tanks.

Warehousing and issue of spare parts course includes nomenclature and use of vehicle parts, listing of parts, spare parts, storage and issue, warehousing forms and methods, typewriting, accounting.

Tire repair department course includes rubber and its treatment, tube repair, fabric-tire repair, cord-tire repair, vulcanizing, retreading, upkeep of tires.

Woodworking and wheel-building department course includes drawing and mathematics, care and upkeep of tools, properties of different kinds of woods, carpentry and woodworking, spoke making, body building, wood-wheel building, wood-wheel repairing.

Motor-cycle department course includes motor accessory work, frame and running gear work, complete overhaul, rebuild, and adjustment; diagnosing of trouble, riding side car and solo in convoy and individually.

Blacksmithing and spring-making department course includes blue-print reading, building and care of fire and fuels, tools, forge work, tempering and heat treatment, spring work, use of instruments.

Painting, trimming, and upholstery department course includes painting of plane surfaces, painting of vehicles, upholstery of vehicles, repairs to upholstery and tops, building of tops for vehicles, side curtains, etc.

Mr. Sisson. I want to ask you a question in regard to the vocational training. General, do you believe that with the training given in your department and in the other departments of the Army, when these young men are released, you have educated them back toward the farm or away from the farm?

Gen. CONNOR. No; a mechanic does not work back toward the farm. As a rule, he works toward the city.

Mr. Sisson. As a general, great governmental policy, this Government has got to do something to rehabilitate the farm. We are taking so many people off the farms; there are 400,000 less young men on the farms this year than there were the year before. Over a million young men during the war went into the various automobile industries and other industries, leaving those young men, of course, of less initiative and less ambition on the farm. I would take a great deal of interest in this vocational training that is annually given to these men if it would tend to really help the Government by having a better class of young men get back to the farm, and I have not found anywhere in this vocational training that it is doing that, notwithstanding the fact that we had a statement here that about 18 per cent of the young men applied for some sort of horticultural or agricultural training in one department of the Government.

I am afraid that the whole tendency of all this modern education is to educate people away from agriculture, which finally destroys the real strength of the country. If you can give us a remedy, showing how we can get these boys to come back to the real work of the farm, I would like to have it.

Gen. CONNOR. I have not got the solution, but I understand that some of our men have gone back to their farm homes and have found what they learned to be valuable to themselves and to the community.

Mr. Sisson. You do not think there would be much inducement in this Army training to go back to Choctaw or Attala, which is God's country?

Gen. CONNOR. We are trying to have vocational agriculture work taught the men. But at the last post where I was they did not take much interest in it. I had a dozen men out of six or seven hundred who wanted to go back on the farm, but even they were discontented.

Mr. Sisson. I do not think that there will ever be a lack of clerks or bookkeepers, but there is a wonderful lack of the right sort of men on the farm.

HIRE OF CIVILIAN EMPLOYEES.

(See p. 688.)

Mr. ANTHONY. You are asking for \$3,479,000 for the hire of civilian employees for the Motor Transport Division for the next fiscal year. Is this an increased amount over what you used during the current year?

Gen. CONNOR. Yes; it is slightly more than we have used during the year. We had expended approximately \$1,480,000 for civilian employees during the first six months, but due to the fact that we are putting in civilian drivers in all the cities and depots and replacing the enlisted men, we will need a little more than we have expended during the first six months in the second six months.

PURCHASE OF GASOLINE, LUBRICATING OIL, GREASE, ETC.

Mr. ANTHONY. You are asking for the purchase of gasoline, lubricating oil, grease, etc., \$6,847,911.79. What have you expended during the current year?

Gen. CONNOR. During the present year we have expended approximately \$3,800,000.

Mr. ANTHONY. So far?

Gen. CONNOR. So far, yes, sir. With that amount, we have 8,500 motor vehicles that are practically all laid up, and we have continual complaints from the Field Artillery that they have not enough gasoline to run the motor vehicles with the organizations. The \$3,500,000 that we estimate for gasoline is not sufficient to let the Army operate with the personnel that we have.

Mr. ANTHONY. What motor vehicles does the Field Artillery use?

Gen. CONNOR. They have their motorized regiments.

REPAIR OF BICYCLES.

Mr. ANTHONY. I notice you are asking for \$64,341.60 for repair of bicycles. Is that the ordinary bicycle?

Gen. CONNOR. That is the ordinary bicycle. Our estimate is that the average amount for upkeep is about \$25 a year per bicycle.

Mr. ANTHONY. This would show that you keep quite a large number of bicycles in operation. Have you any bicycle corps or bicycle organizations?

Gen. CONNOR. No; but bicycles are in practically all of the organizations.

REPAIR OF MOTOR CYCLES.

Mr. ANTHONY. You have an item of \$884,224.98 for repair of motor cycles. That seems to be a very large amount for that purpose.

Gen. CONNOR. The motor cycle is a vehicle which is subjected to a great deal of deterioration because it is a light vehicle.

Mr. ANTHONY. It breaks up after a few weeks of operation, as a general rule, does it not?

Gen. CONNOR. It does. They insist that they can not run at less than 30 miles an hour.

Mr. ANTHONY. We never had motor cycles to any extent until the war came on, and then it looked like they were growing everywhere. Is it necessary to maintain so many of those motor cycles in time of peace?

Gen. CONNOR. The number of motor cycles to be kept under the regulations is 5,058 for the Army, and the upkeep of those motor cycles is approximately 100 per cent per annum, or \$320 per machine.

Mr. ANTHONY. A motor cycle costs a good many more times the cost of a horse, does it not?

Gen. CONNOR. I should say it probably costs about the same, except that they have replacements which cost more than the horse.

Mr. ANTHONY. Does it not look as if we could get along with a good many less motor cycles?

Gen. CONNOR. I have not gone into that item in detail.

Mr. ANTHONY. You are simply instructed to make an estimate for 5,000 motor cycles?

Gen. CONNOR. I am simply instructed to make an estimate for 5,000 motor cycles and the actual operation does not come under me.

Mr. ANTHONY. Who decided that, somebody on the General Staff?

Gen. CONNOR. They study the situation in the different parts of the Army to find out what is needed in the separate arms.

Mr. Sisson. Upon what did you base your calculation, upon your experience as to what it costs to do that?

Gen. CONNOR. We have quite accurate information on the upkeep of vehicles of the different kinds, since the Army became equipped with motor cycles. Our experience is that the consumption of tires is 9 per vehicle during the year, and that the consumption of tubes is about 12 per year per vehicle.

Mr. Sisson. Those are expensive.

Gen. CONNOR. The tires cost about \$13.50 and the tubes about \$3.

Mr. ANTHONY. Is that because of the rougher usage of the military machine as compared with its use in civil life?

Gen. CONNOR. I do not think I exaggerate when I say that the upkeep and deterioration of bicycles or motor cycles in the Army is double or more than double what it is in civil life.

HIRE OF MOTOR TRUCKS.

Mr. ANTHONY. Your next item is for hire of motor trucks, for which you are asking \$10,000. What is the purpose of that?

Gen. CONNOR. That is a minor item. Those trucks are hired in places where there are no vehicles, and it is necessary to employ the services of a truck.

HIRE OF AUTOMOBILES.

Mr. ANTHONY. Your next item is for hire of automobiles, and you are asking the same amount there as you ask for the hire of motor trucks—\$10,000. Does the same thing apply as in the case of the hire of motor trucks?

Gen. CONNOR. The same reason applies there as in the case of the hire of motor trucks. That usually happens in some foreign country.

REPAIR OF MOTOR TRUCKS AND TRAILERS.

Mr. ANTHONY. Your next item is for the repair of motor trucks and trailers, and for that you are asking \$4,954,179.42. How does that compare with the expenditure for the present year?

Gen. CONNOR. We have been husbanding that item until the last three months because we did not know how we were going to stand. For the repairs of motor trucks and trailers we were given last year \$2,737,000, and of that sum \$1,770,000 has been expended.

Gen. LORD. On January 4, 1921, it was \$1,835,737.28. That is the amount that had been allotted up to that date.

Gen. CONNOR. The figure I mentioned a moment ago was the amount on December 14, 1920.

Mr. ANTHONY. That is for the repair of motor trucks in actual use?

Gen. CONNOR. It is for that, and also for getting other ones ready to be used for replacement. The Quartermaster General adopted the policy about four months ago of taking in the unserviceable vehicles and replacing them by new vehicles, and this fund puts them in shape. We set a vehicle up and put it in shape to run before it leaves the depot.

Mr. ANTHONY. That is, you set up the brand-new vehicle

Gen. CONNOR. It is all set up to run and turned over to see that it is in running order before it is issued.

Mr. ANTHONY. Why could not that be done at the post?

Gen. CONNOR. They have not got the personnel, and our responsibility is to furnish a serviceable vehicle. We run it before it is issued to see that it is serviceable and is all right.

Mr. ANTHONY. Is not a new vehicle, such as is shipped from the factory, put in shape to run at the factory?

Gen. CONNOR. That is true, if it is sent direct from the factory because they would have given it a run before it is shipped. But we have had a large quantity of these in storage for two years.

REPAIRS OF AUTOMOBILES.

Mr. ANTHONY. For the repair of automobiles, you are asking \$1,563,686.16. How does that compare with the expenditures this year, so far?

Gen. CONNOR. We have had up to the present time a great surplus of vehicles over our needs. When a vehicle went out of commission it was replaced by a new vehicle, but that condition has practically reached an end at the present time, so far as passenger-carrying vehicles are concerned, and the vehicles in the future will have to have a good deal more repairs than we have been able to give them in the past.

Mr. ANTHONY. What was the amount used this year?

Gen. CONNOR. We have used about \$120,000 in the first six months. But there again we are husbanding our funds, to see how we stand later in the year.

Mr. ANTHONY. You are asking for a sum largely in excess of that in proportion.

Gen. CONNOR. Yes; but it is based on our figures for the upkeep of the vehicles as we have them in our records, whereas our expenditures to date this year represent the substituting of new vehicles for worn-out vehicles.

MAINTENANCE AND OPERATIONS OF MOTOR TRANSPORT SHOPS.

Mr. ANTHONY. You are asking for \$991,804 for the maintenance and operations of motor transport shops. How much has been expended for that purpose during the current year?

Gen. CONNOR. That particular fund has not been drawn on particularly. All of those big funds we have avoided using and thrown them into the last part of the fiscal year, until we could see where we stood on the rest of the appropriation.

Mr. ANTHONY. What items come under the head of maintenance and operations of motor transport shops?

Gen. CONNOR. Under that item we have the items of kerosene, \$7,000; charcoal, which is a small amount, coal, \$300,000; wood, \$3,400; fuel oil, \$25,000; shop tools, \$100,000; shop supplies, department supplies, acetylene, bar steel, and so forth, \$300,000; machine tools, for shop equipment, including new machinery and replacing parts on existing machinery and hand tools, \$420,000.

FOR OPERATIONS OF THE MOTOR TRANSPORT DIVISION.

Mr. ANTHONY. You are asking for a total of \$18,805,148.25 for the operations of the Motor Transport Division for the next fiscal year. That is the money that just keeps the institution going, is it not?

Gen. CONNOR. Yes; that is for the operation of motor transportation.

Mr. ANTHONY. As I go over these figures it appears that the amount is considerably in excess of what you would expend during the current fiscal year.

Gen. CONNOR. Yes; I think that is correct.

Mr. ANTHONY. If a policy is pursued of cutting down the number of motor-truck organizations maintained in active service, and the strictest possible economy is practiced in regard to the use of motor trucks, and in other motor transport activities, what could that be cut down to, if you did not have the money?

Gen. CONNOR. Of course, before the war we operated without any motor trucks. We can operate to suit the amount of money that is appropriated. But it will not be as efficient from any modern point of view as it would be if the proper equipment was permitted. As to what could be done, to revert to the prewar period, they could run without any, but it is a difficult proposition to tell how much motor transport could be decreased.

Mr. Sisson. Suppose the Army should be reduced to 175,000 men? Is this estimate based on 175,000 men?

Gen. CONNOR. Yes.

Mr. Sisson. Suppose the Army is cut to 150,000 men? Could you make a proportionate reduction in the estimate for the Motor Transport Service and still maintain the present efficiency? In other words, is there any constant in this appropriation that would not be reflected in the reduction of the size of the Army?

Gen. CONNOR. I would say—the statement will not sound very reasonable to you—the number of men in the Army does not make so much difference to us as does the number of organizations they put into the Army. The organization is the thing we have to deal with, so far as the motor transport is concerned, and it is the number of organizations in the Army that cause the biggest cost, so far as the motor transportation is concerned, because of the number of vehicles assigned to each organization.

Mr. ANTHONY. If you are going to maintain motor equipment sufficient to send nine divisions into the field at any time, it is going to cost a lot of money, is it not?

Gen. CONNOR. Yes; and motor transport for all of them is bound to be wasteful.

Mr. Sisson. The number of 150,000 men would not necessarily determine the amount of motor transportation with the Army, because in time of emergency you would need a motor transport service ample to take care of many times that number of men?

Gen. CONNOR. Yes. Say we have roughly 12 divisions. The Motor Transport Division has equipment to take care of twice the number of men that they have to-day. It is in reserve, not being operated, but it is all there and could be put into operation, to supply almost double the existing number.

Gen. ROGERS. I think what you are trying to arrive at could be answered in this way. We fixed this number to be covered by the transportation we have to furnish at the depots, no matter what the size of the Army would be, the necessity for motor transportation at the depots moving supplies would be practically the same for 175,000 as for 150,000 men, and the only way I see in which a reduction could be made——

Mr. Sisson (interposing). I imagine the amount used in transportation of supplies might be affected by the size of the Army.

Gen. ROGERS. Not at the depots. The difference there would be very little. The only place where I could see where there might be a reduction would be in case the number of camps would be reduced, so we would not have to have motor transportation at any particular point. Otherwise, I do not see how any reduction could be made in motor transportation.

ANIMAL TRANSPORTATION.

Mr. ANTHONY. Going back for a moment to animal transportation. I believe I asked you to put in the record a statement of the number of animals being maintained by the Supply Division, in your branch of the service.

Gen. ROGERS. Yes.

Mr. ANTHONY. Are you not holding in your corrals an extra large number of horses and mules at this time beyond the number for which there is actual use?

Gen. CONNOR. Yes; because the depots now have a good many animals which would normally go to divisions and different organizations. They have not got wagon companies organized to receive those animals, so that many animals pertaining to the divisions are now in the depots instead of being with the organizations.

Mr. ANTHONY. How many animals are there of that kind which are simply being held at the depots?

Gen. CONNOR. At the remounts depots there is a total of all animals of 27,000. That includes cavalry animals. Of the draft animals there would be approximately 20,000.

Mr. ANTHONY. That would mean about 47,000 animals?

Gen. CONNOR. No; about 6,000 or a little more of these are cavalry animals, and about 20,000 are transportation animals—draft animals.

Mr. ANTHONY. That is a total of about 26,000?

Gen. CONNOR. About 27,000.

Mr. ANTHONY. These animals are performing no actual service?

Gen. CONNOR. No, sir.

Mr. ANTHONY. What does it cost each year to maintain each animal under such conditions, about \$100 a year?

Gen. CONNOR. I should think a dollar a day would be about the figure.

Mr. ANTHONY. How many million dollars is that costing us now?

Gen. CONNOR. About \$9,700,000.

Mr. ANTHONY. Do you not think it would be good business economy to dispose of a number of animals until the time comes when there is actual need for them?

Gen. CONNOR. If they were surplus that might be the case. But I really have not anything to do with these animals in the Remount Service.

Mr. ANTHONY. Who determines how many animals shall be kept in reserve or as surplus.

Gen. ROGERS. I think that is done by the Operations Division of the General Staff.

Mr. ANTHONY. The Operations Division of the General Staff?

Gen. ROGERS. Yes. We get our orders to keep so many animals in reserve.

Mr. ANTHONY. You are merely holding those animals for possible future use?

Gen. ROGERS. Simply under instructions.

Mr. CRAMTON. How does that number compare with the number you had previous to the war?

Gen. CONNOR. We put that in the record yesterday.

Mr. ANTHONY. It looks to me as if there are a good many thousand of horses and mules performing no actual service and that the Government is simply out a dollar a day, or at the rate of \$360 a year for keeping them.

Mr. Sisson. Why is it they order you to keep that number of horses and mules? Is there any good reason for it?

Gen. ROGERS. I could not tell you, sir. If you want my personal view—

Mr. Sisson (interposing). I would be very glad to have it.

Gen. ROGERS. I think it is a good idea to keep the Cavalry and Field Artillery horses to give them a certain amount of training at the remount depots. But it is not so important to keep the draft mules.

Mr. Sisson. How many of these animals are mules?

Col. HANNAY. There are 11,917 draft mules and 1,037 pack mules in remount stations.

Mr. ANTHONY. All these animals we have been talking about are in addition to those actually in service with organizations and at posts?

Gen. CONNOR. Yes, sir.

Mr. ANTHONY. You will put the total number of animals in the record.

Gen. CONNOR. Yes, sir. That was given in the hearing yesterday.

Mr. Sisson. This is a hang-over from the war, is it?

Gen. ROGERS. I expect so, yes, sir.

Mr. ANTHONY. As a matter of fact, is there any real need for an appropriation to buy additional horses at this time?

Gen. CONNOR. We have put in a recommendation to replace those of the existing ones which will normally die during the year.

Mr. ANTHONY. Why can not they be replaced from the surplus?

Gen. CONNOR. This is part of the number we are directed to hold.

Mr. ANTHONY. Why can you not get your replacements necessary for the posts and organizations out of this number you are holding in reserve? You have to maintain that number?

Gen. CONNOR. We are directed to maintain a certain number of them, a certain number with the organizations and a certain number in reserve.

Mr. ANTHONY. If we do not want you to buy any horses or mules, we would have to put such a provision in the bill?

Gen. CONNOR. Yes; I think so.

Mr. ANTHONY. Unless we can trust the administration not to go to that expense.

Mr. Sisson. We do not have the fellow who has the last say before us to make any promises. These gentlemen can not promise anything. That is the trouble with not looking in the eyes of the man who is going to be responsible for this sort of thing. If we could get the responsible man before us, we could get along by having a very distinct understanding with him.

Mr. ANTHONY. As the Chief of the Transportation Division, is your advice asked, or are you consulted as to the necessity for purchasing additional animals or holding all these animals in reserve?

Gen. CONNOR. No; I would not be called on in connection with that. They might call on Gen. Rogers.

Mr. ANTHONY. Gen. Rogers, are you called on for any advice for the necessity for the purchase of additional animals?

Gen. ROGERS. I have not been consulted in regard to animals, no, sir.

CHANGE OF LANGUAGE.

Mr. ANTHONY. I want to take up the changes in language which you propose in this section for transportation of the Army and its supplies. On page 47 you want to omit the words "of the Minor Planters Service," because that is provided for elsewhere?

Gen. CONNOR. I am not familiar with this; I did not write the wording; but I understand that the warrant officers of the Minor Planters Service are included in the general warrant officers of the Army.

Mr. ANTHONY. Also, on page 47, you have changed the date of June 3, 1916, to February 28, 1919, and you have changed the section number from 126 to 3.

Gen. CONNOR. That is simply referring to the latest law.

Mr. ANTHONY. On page 48 you want to change the word "equipage" to "equipment." What is the reason for that?

Gen. LORD. The word "equipage" is used in the title of the appropriation appearing on page 55 of the bill. I have the following note on this change:

As indicated in line 4, page 48 of the subcommittee print of the bill, the word "equipment" has been substituted for "equipage," the substituted word having a somewhat broader meaning. The word "equipage" is used in the title of the appropriation appearing on page 55 of the subcommittee print, and has a significance that has resulted from the publication for many years of what was commonly called the "annual clothing order," which has since been superseded by special regulations No. 40. The articles therein named furnished by the Quartermaster Corps, other than clothing, are known as "equipage," whereas the word "equipment," as used in various orders and other War Department publications, refers to various articles furnished by the different supply bureaus. Thus there is Ordnance equipment, Signal equipment, Engineer equipment, etc.

Mr. ANTHONY. The word "equipment" would cover all classes?

Gen. LORD. Yes; it would make it uniform as regards the other services.

TRANSPORTATION OF MEMBERS AND EMPLOYEES OF THE PORTO RICO GOVERNMENT AND THEIR FAMILIES.

Mr. ANTHONY. You want to omit this proviso at the bottom of page 50:

Provided further, That hereafter when, in the opinion of the Secretary of War, accommodations are available, transportation on Army transports may be provided for the members and employees of the Porto Rican government and their families without expense to the United States.

Gen. CONNOR. I might suggest that that proviso was put in there during the war and that is the only proviso for carrying such people which does not state that they must be traveling on official business, and it came up just recently in connection with the desire of the wives of public officials to travel back and forth from Porto Rico when their husbands are not traveling. They said there is no mention of official business in the law. If Gen. Rogers will pardon my making a suggestion, I think that ought to read "when traveling on official business."

Mr. ANTHONY. Under the general law you would have authority to permit anyone to travel on a transport from Porto Rico on official business?

Gen. CONNOR. Yes.

Mr. Sisson. This proviso is permanent law?

Gen. CONNOR. That is the law at the present time.

Mr. CRAMTON. And if we adopt Gen. Connor's suggestion, that would be a restriction of it.

Gen. CONNOR. Yes; if you add the words "when traveling on official business," or "public business."

Mr. CRAMTON. You would suggest that we add the words "when on public business"?

Gen. CONNOR. "When traveling on official business."

Mr. CRAMTON. Really that legislation was put in there to permit American teachers in Porto Rico to travel back and forth on Government transports.

Gen. CONNOR. Yes, so I understand.

Mr. CRAMTON. The provision you suggest would bar those teachers. would it not?

Gen. CONNOR. No; they are on official business.

Gen. ROGERS. The only thing we want to prevent is a junket.

Mr. CRAMTON. What do you recommend?

Gen. CONNOR. Simply to add, after the word "Government," the words "when traveling on official business," and that would bar out all others.

AUTHORITY TO USE SPACE ON TRANSPORTS FOR CIVILIAN PASSENGERS
AND COMMERCIAL CARGO.

Mr. ANTHONY. In the first line of page 51 you want to insert the word "hereafter," which makes permanent law the authority to use space on transports for civilian passengers and shipment of commercial cargo at such times as space is not available on commercial lines. The later phrase "at such times as space is not available on commercial lines" is new language.

Gen. ROGERS. Whether that language is inserted or not is entirely according to what the committee may think best, so far as we are concerned. We do not care very much about taking those passengers, and I would recommend against it except in cases of emergency. At the present time I have already recommended that no more passengers be taken because there is no necessity of it. But if you care to leave it in and leave it to the discretion of the Secretary of War, I see no harm in leaving it in.

Mr. ANTHONY. Without that law, would you not have to strain a point a little if there was an emergency?

Gen. CONNOR. The Judge Advocate General has ruled that there is nothing in the law to prevent their use in time of emergency, and based on that we were authorized to carry passengers on the Pacific and to the Canal Zone during the war, and if Gen. Rogers has no objection to it I would like to have it left as it is now. We have the authority.

Mr. CRAMTON. Suppose the whole proviso should be left out of the bill; what would be the situation?

Gen. ROGERS. The situation would be that in case of emergency we would not be able to take any commercial passengers. There might be some case when it would be an advantage to the civil population to take a few passengers.

Mr. CRAMTON. Recently you have been carrying quite a percentage of civilian passengers upon the payment of rates, and it has come under my observation that the furnishing of proper quarters to those properly on the transports, such as Navy officers and Army officers who are required to travel on these transports, has been prevented by reason of civilians traveling on the transports. I have in mind a case where at the request of the State Department a large number of Czechs or Poles being brought here to go to school were loaded on one of the transports and responsible Army officers had to take inferior quarters as a consequence. There is a question in my mind

whether this authority is not proving a greater nuisance to the Army than any convenience to the civilian population justifies.

Gen. CONNOR. No authorizations have been granted since about a month ago.

Gen. ROGERS. I would say it would be just as well to leave the proviso in the bill.

FOR ADDITIONAL PAY TO EMPLOYEES ON HARBOR BOATS, ETC.

Mr. ANTHONY. At the bottom of page 51 of the bill there is a proviso "That \$460,000 of the appropriation hereby made shall be available for additional pay for employees on harbor boats, quartermaster service, in lieu of subsistence." Legislation gives them the right to subsistence, but they prefer to substitute money for that?

Gen. CONNOR. Where no mess or cooking facilities are provided on the boat.

Mr. ANTHONY. That will take \$460,000?

Gen. CONNOR. That is figured from the number of men they have.

FOR TRANSPORTATION OF WEST POINT CADETS TO WASHINGTON FOR INAUGURAL CEREMONIES.

Mr. ANTHONY. You have a new proviso at the bottom of page 51, "That of the amount herein appropriated not exceeding \$27,010 may be used for extraordinary expenses of transportation of West Point cadets to Washington, District of Columbia, to attend inaugural ceremonies, and return, in the year 1921, which sum shall be immediately available." That is the actual amount necessary for the transportation of the cadets?

Gen. CONNOR. We have figured up exactly what the cost will be to bring the cadets here.

Mr. CRAMTON. And this \$36,000 covers the whole cost to the Government, including the amount mentioned in this proviso and \$9,000 in another item? Is that the whole cost to the Government, or is there some other item yet to come?

Gen. CONNOR. I can not think of any other item. That will bring them here, keep them while they are here, and take them back.

REMOVAL OF PROVISION FOR PURCHASE OF MOTOR VEHICLES, ETC.

Mr. CRAMTON. If you drop out this provision—

That none of the funds appropriated or made available under this act or any of the unexpended balances of any other act shall be used for the purchase of motor-propelled passenger or freight carrying vehicles for the Army except those that are purchased solely for experimental purposes—

what is the effect?

Gen. CONNOR. We have nothing estimated in the bill this year for buying motor vehicles.

Mr. CRAMTON. Why do you want to drop this provision out?

Gen. CONNOR. I do not know about that. I had not seen it before.

Gen. LORD. That was a recommendation which came to us from the office of the Quartermaster General.

Mr. ANTHONY. At the present time this is the law, is it not, and you are prohibited from using any funds for the purchase of motor-

propelled vehicles, passenger or freight carrying vehicles for the Army, and you want that provision eliminated, which will enable you to buy those vehicles?

Gen. CONNOR. We have not had need to purchase any, so the question whether we were authorized to purchase has never come up since I have been here.

Mr. ANTHONY. I had understood that the Army had contracted for trucks during the past year?

Gen. CONNOR. No, sir.

MILITOR TRUCK CONTRACT.

Mr. ANTHONY. When was the contract made for the so-called Militor truck?

Gen. CONNOR. It was made over a year ago.

Mr. ANTHONY. Previous to the passage of this limitation?

Gen. CONNOR. The Militor truck contract was made about March of 1919.

Mr. ANTHONY. Have they been delivered to the Government?

Gen. CONNOR. No, sir; the firm got into financial difficulties and the contract was finally practically taken over by another concern, who are financing the completion of the contract.

Mr. ANTHONY. You say the firm went broke and that it was necessary to make a new contract?

Gen. CONNOR. No; they got into financial difficulties and another firm has financed them to finish the contract. The Militor contract was made in the previous fiscal year, and nothing has been purchased during the current fiscal year.

Mr. ANTHONY. I understand the contract was made with a concern that had no facilities for manufacturing trucks.

Gen. CONNOR. The Sinclair Motor Co.—whether they were in shape to build any trucks or not I do not know—but they were not in shape to build this truck because this is a special truck and the first one that was built was built by hand, and their contract was for 75, with some spare parts, at a price of \$8,000 per vehicle, and at that time they had to make their dies and jigs and set up a shop to construct such a car.

Mr. ANTHONY. Was that contract approved?

Gen. CONNOR. I was out of the country at the time. I simply found it when I came here and the question came up about their financial difficulties. There have been no trucks delivered and the contract is not finished.

Mr. ANTHONY. Would you approve the purchase of those truck-to-day?

Gen. CONNOR. All I know about them is that they are approximately the same as the four-wheel-drive Nash Quad truck, and all my experience in France was that this truck was not satisfactory. I would look on the principle of the truck as being likely to produce a poor kind of truck.

Mr. CRAMTON. I would like to get at this proposition, and that is the adoption of this new policy of transferring a lot of work formerly done by soldiers to civilians. I would like to know what has been the effect of that. In other words, how many civilians are now required to perform duties that formerly were performed by soldiers.

Of course you could only give that information as to the Quartermaster Department.

Gen. CONNOR. I think you can get that by means of a letter to the Chief of Staff.

CLOTHING AND CAMP AND GARRISON EQUIPAGE.

Mr. ANTHONY. We will take up the paragraph headed "Clothing and camp and garrison equipage."

Col. HANNAY. We are asking for a total of \$18,633,625, a reduction of \$366,375 from the amount appropriated last year.

Mr. ANTHONY. The original estimate asked for \$30,500,000 under this head?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. You have cut this down to conform with the Army of 175,000?

Col. HANNAY. We have not only cut it down to conform with the Army of 175,000, but the Quartermaster General has cut it down in certain items that he did not consider absolutely essential. And since we made up the estimate there has been a reduction on account of prisoners. We are asking this year that the amount for civilian clothing for general prisoners discharged be reduced from \$40 to \$30.

Mr. ANTHONY. You believe you can give him a complete outfit of clothing for \$30?

Col. HANNAY. Yes, sir; and it is decreased to that amount, including the overcoat. And we have found, also, that the number of prisoners to be discharged will be approximately 3,000. In the hearings the other day we stated it would be 4,000, but we were informed by The Adjutant General this morning it would be approximately 3,000. We had figured too, originally, for draft deserters. It was contemplated there would be practically 175,000 of those; but we have eliminated that as we find they are not getting them.

Mr. ANTHONY. This item includes all clothing for the enlisted men of the Army?

Col. HANNAY. Yes, sir. And it is one of those items, Mr. Chairman, that can not very well be reduced from these figures, because it is predicated on stock and necessary requirements, and it is constant.

Mr. ANTHONY. And what your figures show will be used per enlisted man per year?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. How many uniforms does an enlisted man wear out in a year; that is, coat and trousers?

Col. HANNAY. He wears about one and a half woolen coats, two pair of woolen breeches, and about two cotton coats and three cotton breeches, and four pairs of shoes.

Mr. ANTHONY. In addition to placing the items composing this paragraph in the record, I wish you would also put in a statement what the component parts of uniform cost per enlisted man.

STATEMENT SHOWING COST OF COMPONENT PARTS OF UNIFORM.

Cost of one complete winter uniform, for enlisted men, consisting of the following articles:

1 belt.....	\$0. 23	1 set of ornaments.....	\$0. 08
1 breeches.....	6. 32	1 overcoat.....	13. 56
1 cap.....	2. 10	1 raincoat.....	5. 93
1 chevron.....	. 28	1 shoes.....	6. 72
1 coat.....	9. 79	1 shirt.....	3. 50
1 collar.....	. 19	1 stockings.....	. 35
1 cravat.....	. 23	1 undershirt.....	2. 00
1 drawers.....	2. 00		
1 gloves.....	. 67		
1 leggins.....	1. 64		
		Total.....	55. 59

Cost of one complete summer uniform, for enlisted men, consisting of the following articles:

1 belt.....	\$0. 23	1 leggins.....	\$1. 64
1 breeches.....	1. 70	1 set of ornaments.....	. 08
1 hat.....	2. 07	1 raincoat.....	5. 93
1 chevron.....	. 28	1 shoes.....	6. 72
1 coat.....	1. 96	1 shirt.....	1. 53
1 collar.....	. 19	1 stockings.....	. 16
1 cravat.....	. 23	1 undershirt.....	. 60
1 drawers.....	. 60		
1 gloves.....	1. 06		
		Total.....	24. 98

Cost of initial equipment of clothing issued to each enlisted man, as provided by equipment tables, consisting of the following articles:

2 belts.....	\$0. 46	2 leggins.....	\$3. 28
4 breeches, cotton.....	6. 80	4 ornaments, collar, set.....	. 24
3 breeches, woolen.....	18. 96	1 ornaments, cap.....	. 05
1 cap, service.....	2. 10	1 overcoat.....	13. 56
1 cap, winter.....	1. 10	1 raincoat.....	5. 93
9 chevrons.....	2. 52	3 shirts, cotton.....	4. 59
3 coats, cotton.....	5. 88	3 shirts, woolen.....	10. 50
2 coats, woolen.....	19. 58	3 shoes.....	20. 16
2 cords, hat.....	. 18	8 stockings, cotton.....	1. 28
1 cravat.....	. 23	6 stockings, light wool.....	2. 10
6 drawers, cotton.....	3. 60	6 stockings, heavy wool.....	3. 30
4 drawers, woolen.....	8. 00	6 undershirts, cotton.....	3. 60
1 gloves, woolen.....	. 67	4 undershirts, woolen.....	8. 00
1 gloves, lisle.....	1. 06		
6 handkerchiefs.....	. 60		
2 hats, service.....	4. 14		
		Total.....	152. 47

In addition to the above, several other articles are issued to enlisted men, when required, such as rubber boots, overshoes, denim clothing, special clothing for motorcyclists, mittens, etc.

Clothing, and camp and garrison equipage.

Item No.	Name of item.	Apportioned fiscal year 1921 for 175,000 men.		Estimated fiscal year 1922 for 150,000 men.	
		Amount.	Capita.	Amount.	Capita.
1401. 107	Clothing for enlisted men, including raw materials for the manufacture of same.....	\$11,342,857	\$64.816	\$8,997,208	\$59.848
1402. 107	Clothing for warrant officers, including raw materials for the manufacture of same.....	16,872	.096	20,000	.133
1403. 107	Clothing for Army nurses, including raw materials for the manufacture of same.....	35,150	.20	75,000	.50
1406. 107	Clothing, citizens' outer clothing, to cost not exceeding \$30, to be issued to soldiers discharged otherwise than honorably.....	70,200	.401	90,000	.60
1407. 107	Altering, fitting, cleaning, and repairing clothing, including purchase of tools, machinery, findings, etc.....	1,743,124	9.96	1,820,405	12.136
1408. 107	Toilet articles, barbers' and tailors' materials, including housewives and toilet kits.....	223,806	1.278	221,610	1.477
1409. 107	Textile equipment, such as tents, paulins, bed sheets, pillowcases, mattress covers, cartridge belts, etc., including raw materials for the manufacture of same.....	1,667,001	9.529	1,189,082	7.927
1410. 107	Leather personal equipment, including raw materials for the manufacture of same.....	296,139	1.692	236,500	1.576
1411. 107	Horse equipment, including raw materials for the manufacture of same.....	159,932	.913	129,000	.86
1412. 107	Harness, artillery, reel cart, and machine-gun cart.....	159,932	.913	129,000	.86
1413. 107	Miscellaneous articles of equipage not listed above.....	1,235,059	7.057	1,286,500	8.576
1414. 107	Musical instruments, including spare parts and repair of same.....	118,566	.677	108,650	.724
1415. 107	Mess equipment (formerly ordnance item).....	39,983	.228	34,314	.228
1416. 107	Intrenching tools.....	39,983	.228	34,314	.228
1417. 107	Experimental purposes.....	87,875	.502	50,000	.333
1418. 107	Marksmanship insignia.....	176,663	1.009	117,897	.785
1419. 107	Miscellaneous repair and covering materials, such as leather, duck, etc.....	316,203	1.806	229,727	1.531
1420. 107	Overhauling, cleaning, and repairing articles of textile, leather, and horse equipment, including harness.....	770,555	4.403	635,820	4.238
1421. 107	Packing and handling of clothing and equipage.....	500,000	2.85	750,000	5.00
	Total.....	19,000,000	108.57	16,135,027	107.566

Item No.	Name of item.	Estimated fiscal year 1922 for 175,000 men.		Estimated fiscal year 1922 for 280,000 men.	
		Amount.	Capita.	Amount.	Capita.
1401. 107	Clothing for enlisted men, including raw materials for the manufacture of same.....	\$10,438,614	\$59.649	\$16,153,062	\$57.689
1402. 107	Clothing for warrant officers, including raw materials for the manufacture of same.....	20,000	.114	20,000	.071
1403. 107	Clothing for Army nurses, including raw materials for the manufacture of same.....	125,000	.714	125,000	.446
1406. 107	Clothing, citizens' outer clothing, to cost not exceeding \$30, to be issued to soldiers discharged otherwise than honorably.....	90,000	.514	90,000	.321
1407. 107	Altering, fitting, cleaning, and repairing clothing, including purchase of tools, machinery, findings, etc.....	2,116,750	12.096	3,410,000	12.178
1408. 107	Toilet articles, barbers' and tailors' materials, including housewives and toilet kits.....	257,687	1.472	389,300	1.39
1409. 107	Textile equipment, such as tents, paulins, bed sheets, pillowcases, mattress covers, cartridge belts, etc., including raw materials for the manufacture of same.....	1,382,654	7.90	2,253,144	8.046
1410. 107	Leather personal equipment, including raw materials for the manufacture of same.....	275,000	1.571	351,000	1.253
1411. 107	Horse equipment, including raw materials for the manufacture of same.....	150,000	.857	210,000	.75
1412. 107	Harness, artillery, reel cart, and machine-gun cart.....	150,000	.857	210,000	.75
1413. 107	Miscellaneous articles of equipage not listed above.....	1,495,930	8.548	1,986,330	7.094
1414. 107	Musical instruments, including spare parts and repair of same.....	108,650	.62	150,150	.536
1415. 107	Mess equipment (formerly ordnance item).....	39,900	.228	52,500	.187
1416. 107	Intrenching tools.....	39,900	.228	52,500	.187
1417. 107	Experimental purposes.....	50,000	.286	50,000	.178
1418. 107	Marksmanship insignia.....	137,090	.783	170,000	.607
1419. 107	Miscellaneous repair and covering materials, such as leather, duck, etc.....	267,125	1.526	420,983	1.503
1420. 107	Overhauling, cleaning, and repairing articles of textile, leather, and horse equipment, including harness.....	739,325	4.224	1,182,937	4.224
1421. 107	Packing and handling of clothing and equipage.....	750,000	4.285	750,000	2.678
	Total.....	18,633,625	106.477	28,026,996	100.096

Col. HANNAY. Yes, sir. And, furthermore, in all these figures we are asking for money simply to manufacture fabrics on hand into the finished articles, and although in the finished article which we manufacture there has been a slight reduction in the price of the labor for manufacturing garments, this reduction has not been material.

Mr. ANTHONY. The price of cloth has fallen materially.

Col. HANNAY. The price of cloth has fallen materially, and we are asking for no cloth.

Mr. ANTHONY. You intend to make no purchase of cloth?

Col. HANNAY. We are asking for no money for the purchase of cloth.

Mr. ANTHONY. Can you put in the record how much cloth you have on hand?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. And you might also put in what that cloth cost per yard and what the same cloth could be purchased for to-day.

Col. HANNAY. Yes, sir.

Quantities of clothing (principal items) on hand Nov. 30, 1920.

BREECHES.

Size (inches).	Cotton.	Woolen.	Size (inches).	Cotton.	Woolen.
28-25 ¹	23,895	13,679	34-29.....	583,722	124,000
28-27.....	17,455	18,677	36-27.....	971,522	271,000
30-25.....	19,483	15,733	36-29.....	312,467	17,000
30-27.....	35,515	24,930	38-25.....	112,831	50,000
31-25.....	13,250	16,431	38-29.....	71,908	31,000
31-27.....	77,900	25,407	40-27.....	88,297	24,000
32-25.....	51,456	35,957	42-27.....	8,351	10,000
32-27.....	939,372	111,324	44-29.....	3,000	0
32-29.....	497,403	79,075			
34-27.....	1,450,168	230,704	Total.....	5,287,990	1,077,000

¹ Requisitions are calling for sizes 28-25 to 32-25, but there are not sufficient quantities on hand to meet requirements.

CAPS, SERVICE.

Size 6 $\frac{1}{2}$	2,634	Size 7 $\frac{1}{2}$	27,300
Size 6 $\frac{1}{2}$	7,480	Size 7 $\frac{1}{2}$	9,400
Size 6 $\frac{1}{2}$	11,847	Size 7 $\frac{1}{2}$	6,000
Size 6 $\frac{1}{2}$	62,500	Size 7 $\frac{1}{2}$	0
Size 6 $\frac{1}{2}$	42,199		
Size 7.....	58,647	Total.....	281,400
Size 7 $\frac{1}{2}$	52,387		

NOTE.—Not sufficient stock of small sizes on hand.

COATS.

Size.	Cotton.	Woolen.	Size.	Cotton.	Woolen.
33.....	20,609	16,685	40.....	789,287	87,000
33 (long).....	10,662	7,543	40 (long).....	160,149	72,000
34.....	22,390	22,611	40 (short).....	3,331	0
34 (long).....	19,245	5,603	42.....	486,977	300,000
35.....	32,244	79,367	44.....	157,639	74,000
36 (long).....	23,483	49,449	30.....	10,667	11,000
36.....	75,308	184,282	31.....	15,967	14,000
36 (long).....	117,972	69,579	32.....	15,639	0
36 (short).....	2,598	58	32 (long).....	0	0
38.....	1,529,018	1,068,081			
38 (long).....	166,284	58,317	Total.....	3,988,914	2,273,000
38 (short).....	7,727	0			

NOTE.—In several sizes there are not sufficient stock on hand to meet requirements.

Quantities of clothing (principal items) on hand Nov. 30, 1920—Continued.

DRAWERS.

Size.	Summer.	Winter.	Size.	Summer.	Winter.
28.....	43,750	223	40.....	612,877	775,036
30.....	82,626	43,262	42.....	305,044	95,617
32.....	1,291,660	337,663	44.....	158,430	47,005
34.....	2,507,319	1,299,602	Total.....	9,816,718	5,223,304
36.....	3,068,154	1,735,571			
38.....	1,746,858	889,325			

GLOVES, WOOL, OLIVE DRAB.

9.....	162,218
10.....	534,127
11.....	953,260
Total.....	1,649,605

HATS, SERVICE.

Size No. 6 $\frac{1}{2}$	500	Size No. 7 $\frac{1}{2}$	36,843
Size No. 6 $\frac{1}{2}$	14,620	Size No. 7 $\frac{3}{4}$	17,176
Size No. 66 $\frac{1}{8}$	12,330	Size No. 7 $\frac{1}{2}$	2,570
Size No. 6 $\frac{3}{4}$	323,567	Size No. 7 $\frac{3}{4}$	3,990
Size No. 6 $\frac{7}{8}$	306,166	Total.....	1,109,983
Size No. 7.....	225,832		
Size No. 7 $\frac{1}{2}$	166,389		

NOTE.—Not sufficient small sizes on hand.

LEGGINS.

Canvas, mounted:		Canvas, mounted—Continued.	
No. 1.....	4,402	No. 5.....	27,221
No. 2.....	194,290	No. 6.....	864
No. 3.....	315,033	Total.....	626,062
No. 4.....	84,252		

OVERCOATS.

Size No. 34.....	11,527	Size No. 40.....	193,715
Size No. 34 (long).....	4,148	Size No. 40 (long).....	56,432
Size No. 36.....	31,049	Size No. 42.....	96,785
Size No. 36 (long).....	14,018	Size No. 44.....	33,584
Size No. 38.....	376,800	Total.....	885,620
Size No. 38 (long).....	67,562		

NOTE.—Not sufficient stock of small sizes on hand to meet requirements.

RAINCOATS.

	Foot.	Mounted.
Small.....	32,403	6,302
Medium.....	792,109	687,020
Large.....	39,647	4,905
Total.....	864,159	698,227

SHIRTS, FLANNEL.

Size 13½.....	6, 053	Size 17.....	1, 115. 945
Size 14.....	14, 690	Size 18.....	104 124
Size 14½.....	28, 193	Size 19.....	48, 798
Size 15.....	21, 228		
Size 15½.....	1, 644, 585	Total.....	5, 802. 842
Size 16.....	2, 819, 276		

NOTE.—Requisitions call for sizes 13½ to 15. Not sufficient stock of these sizes on hand to meet requirements.

STOCKINGS.

Size.	Cotton.	Woolen.	Size.	Cotton.	Woolen.
9.....	1, 602	869	11½.....	306, 074	2, 460 777
9½.....	13, 676	4, 533	12.....	686, 285	790, 844
10.....	10, 105	474, 319			
10½.....	93, 148	3, 587, 018	Total.....	1, 789, 296	11, 989, 544
11.....	678, 406	4, 662, 160			

UNDERSHIRTS.

Size.	Cotton.	Woolen.	Size.	Cotton.	Woolen.
34.....	164, 297	16, 982	44.....	482, 663	299 17
36.....	833, 142	294, 263	46.....	142, 671	84. 144
38.....	1, 767, 309	1, 865, 656			
40.....	2, 739, 060	2, 942, 489	Total.....	7, 192, 506	6, 338. 44
42.....	1, 063, 364	872, 716			

COMPLETE UNIFORMS.

With cap.		With hat.	
Cotton.	Woolen.	Cotton.	Woolen.
281, 948	281, 948	694, 661	694, 661

Uniform cloth on hand for manufacture of uniforms.

	Yards.
Melton, olive-drab, 20-ounce.....	2, 000 000
Cotton, olive-drab.....	1, 200 000

Sufficient for manufacture of 574,000 woolen uniforms and 343,000 cotton uniform. In order that provisions of Circular 152, W. D., 1920, can be carried out, there shall be on hand at all times 700,000 suits of woolen clothing and 1,100,000 cotton uniform.

1. A complete uniform, as prescribed in paragraph 6a, Circular 152, W. D., 1920, consists of shirt, olive drab, cap, hat, coat, breeches, leggins, and shoes; hence a complete uniform must be shown by the smallest quantity of any of the articles on hand. i. e., there are 5,287,990 pairs breeches, cotton; 3,903,914 coats, cotton. A. 727,232 pairs shoes, service, in stock; there are only 281,948 caps, service, in stock; hence, the number of complete uniforms is 281,948.

2. Circular 152, W. D., 1920, prescribes three coats, cotton; two coats, woolen pairs breeches, cotton; and three pairs breeches, woolen, per man. For distribution in 13 supply depots, the five departments outside the continental limits of the United States, requires a 200 per cent stock, distributed 50 per cent in camps, posts, and stations, and 150 per cent in the general supply depots.

3. It is deemed necessary to carry in stock sufficient clothing to make prompt issue to the National Guard.

4. It is estimated that there are 800,000 discharged soldiers entitled to new uniform clothing under provisions of the act of Congress of February 28, 1919, for which clothing must be on hand in the depots.

5. Attention is invited to the accumulation of large sizes manufactured during war and for which there is very little demand at present, due to the very small number who are now being enlisted.

6. From measurements of recruits submitted to this office it has been found necessary to amend the tariff and to manufacture and provide stocks of clothing in the following sizes:

Breeches, cotton and woolen: 28—25, 28—27, 30—25, 30—27, 31—25, 31—27, 32—25.

Coats, cotton and woolen: 33, 33 (long), 34, 34 (long), 35, 35 (long).

Drawers, cotton and woolen: 28, 30.

Hats, service: 6½.

Overcoats: 34, 34 (long).

Shirts, flannel and cotton: 13½, 14, 14½, 15.

Shoes, sizes 4 and 4½, lasts A to EE.

7. While there appears to be sufficient quantities of certain sizes of clothing on hand to meet the requirements of the Army for two or more years, there is not a sufficient stock on hand to meet current requirements of small sizes, and it has been necessary to continually procure articles of clothing of small sizes in large quantities.

8. The stocks on hand shown above are based on the reports received from the various depots as of September 30, 1920, and by the end of the current fiscal year these stocks will have been greatly reduced on account of issues to the Regular Army, National Guard, Reserve Officers' Training Corps, and to discharged enlisted men entitled to a reissue of the uniform.

9. Extra small sizes in clothing are also necessary in order that requisitions from Reserve Officers' Training Corps units can be promptly filled.

Quantity of uniform material that should be kept in reserve.

There should be kept on hand a sufficient quantity of uniform material for the manufacture of all uniforms needed during the following fiscal year, as it takes more than six months to procure, manufacture, and deliver uniform material. The following are the estimated figures required for this purpose and which should be kept in reserve at all times:

	Yards.
Melton, 20-ounce, for the manufacture of—	
675,000 coats.....	1, 275, 000
850,000 breeches.....	1, 180, 554
Total.....	2, 455, 554
Melton, 30-32-ounce, for the manufacture of 275,000 overcoats.....	431, 319
Cotton olive-drab cloth, for the manufacture of—	
675,000 coats.....	2, 375, 700
850,000 breeches.....	2, 431, 944
Total.....	4, 807, 644
Shirting flannel, for the manufacture of 1,125,000 shirts.....	2, 189, 166

Price per yard paid for uniform cloth.

Price per yard paid for uniform cloth now on hand:

20-ounce melton for uniforms \$4. It is believed that this material can now be purchased at \$3.

30-32-ounce melton for overcoats, \$4.10. It is estimated that this material can now be purchased for \$3.25.

Cloth, cotton, olive drab, for cotton uniforms \$0.34 per yard. It is believed that this material can now be purchased at \$0.30 per yard.

Mr. ANTHONY. The soldier is now furnished with all of the required articles of clothing free?

Col. HANNAY. He is; yes, sir.

Mr. ANTHONY. Formerly you used to make a clothing allowance.

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Of so much money per annum?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. And he could either save out of that or use it all?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Now he is given every item he needs, as it wears out?

Col. HANNAY. Yes, sir.

Gen. ROGERS. I would like to call your attention to the fact that part of this money will be used to provide uniforms for discharged soldiers. You remember you spoke of that at the beginning of the hearings.

Mr. ANTHONY. Yes, sir.

Col. HANNAY. Incidentally, this provides for clothing for 50,000 Enlisted Reserve Corps men in addition to the 175,000 men in the Army.

Mr. ANTHONY. If the Army should be cut to 150,000 men in the next fiscal year, you could make a proportionate reduction in clothing?

Col. HANNAY. Practically a proportionate reduction except in a few items, certain things for uniforms for men in the Mine Planter Service and other items which could not be cut arbitrarily in proportion. The main items could be.

Mr. ANTHONY. In handling the Army clothing do you still carry out a complete system of salvage?

Col. HANNAY. Yes, sir; we do.

Mr. ANTHONY. Is that reissued to the soldier or sold?

Col. HANNAY. Some of it is sold. The policy has been of late that the enlisted man must be issued new articles, and we have found difficulty in requiring the enlisted man to take salvaged articles, except prisoners and for fatigue clothing—for work clothing.

SALVAGE SALES.

Mr. ANTHONY. Where are your principal salvage operations carried on?

Col. WARFIELD. At every camp, post, and station there are certain salvage functions carried on that come in from the daily accumulation of that station. It is salvaged right there. Also at the larger depots and a few of the manufacturing plants we carry on salvage operations. The larger salvage operations conducted during the war have been discontinued and there are really no large salvage operations being conducted to-day. The largest that are in operation are at the depots.

Mr. ANTHONY. What depots?

Col. WARFIELD. The depots in Boston, New York, Chicago, San Antonio, San Francisco, and New Orleans.

Mr. ANTHONY. And it is at those places that the worn shoes and things of that kind are remade into serviceable articles?

Col. WARFIELD. No, sir; we do not ship anything unless we have to; we repair it right at the station and give it to the men to wear again. If there is any accumulation at that station to be taken care of, in some extreme cases we ship into the depots to be sold, or used if needed.

Mr. ANTHONY. Are these salvage plants self-sustaining?

Col. WARFIELD. Yes, sir; every one of them.

Mr. ANTHONY. That is, the sale of salvaged articles pays for operation of the plant?

Col. WARFIELD. Yes, sir.

Mr. ANTHONY. Could you give us an idea of the operations of principal plants under your control?

Col. WARFIELD. During the year ending June 30, 1920, the report of Gen. Rogers, Quartermaster General, shows that the total saved to the Government by the salvage division was \$33,429,076.47.

Mr. ANTHONY. That is the total value of all salvaged articles?

Col. WARFIELD. That is the total value of the saving by the salvage division, and that is divided into two principal operations; that is, the cash sales of obsolete and worn-out articles no longer required for the Government service, and repairs and returns to soldiers. The amount received from sales, which meant actual cash turned in to the Treasury as miscellaneous receipts, was \$15,949,173.25.

Then, repairs and returns to soldiers, articles he had worn out and which would in the ordinary course have been replaced by new articles; that is, articles which were repaired and returned to the individual soldiers, the total value was \$17,479,903.22.

Mr. ANTHONY. How much do you figure it cost the Government to do this work that resulted in a gross return of \$33,000,000?

Col. WARFIELD. To produce the \$17,000,000 it cost, in round numbers, \$5,000,000. Take the item of shoes, for instance. The latest price on shoes paid by the Government is \$4.09 per pair. Instead of issuing a new pair of shoes to the man, we took the old pair of shoes and repaired them at a cost of \$1.45 and returned them to him, making a saving in every pair of shoes of \$2.64. And when you figure a man will wear out, or, rather, we repair for a man about three pairs of shoes a year, you can just multiply that by three, or whatever the number is, depending upon the condition of the service. Every time we repair a pair of shoes, instead of issuing a new pair it makes a saving of \$2.64.

It is the same way with the clothing. Take woolen O. D. clothing. A new uniform costs, at the latest price, \$16.11. We repair for the enlisted man, probably two or three times a year, his suit at about 51½ cents a suit, or \$1.54½ a year, saving to the Government about \$14.56½ per suit. This includes the overcoat and other clothing.

The cotton O. D. clothing, the breeches cost about \$1.75 and the blouse \$1.96, and it costs us, on the average, 38 cents to repair the cotton O. D. about twice a year. He does not wear cotton as much as he does the woolen O. D. That means a saving of 76 cents, or a saving on each uniform of \$2.96.

Altering and fitting clothing is another head. During the war a great many of the sizes of clothing were large, and a great many of the men we have in now are smaller men and the clothing issued to them from what we have on hand is too large for them. We bring it into the salvage division and cut it down and fix it over so that it amounts to practically a brand-new uniform that fits him just like a tailor-made uniform. That costs us, on the average, about \$1.20 a suit, and we figure a man will have about two of those uniforms fixed over every year, so that it costs \$2.40 per man per year, and he has practically a new suit.

Mr. ANTHONY. Are you at the head of this salvage service, Col. Warfield?

Col. WARFIELD. I am at the head of the salvage branch, Storage Division, Supply Service of the Quartermaster's Corps, yes, sir.

Mr. ANTHONY. I am sure we are glad to find one Government department that is making a dividend. Will you put an extract from that report of the Quartermaster General's, showing the operations of the salvage work, in the record for us?

Col. WARFIELD. Yes, sir.

Following is a tabulated summary of the return in dollars and cents resulting from the operations of the Salvage Division:

Statement of salvage service.

[Compiled from monthly reports submitted to this office covering operations during fiscal year 1920.]

Activity.	Total articles.	Estimated cost.	Estimated value of articles made serviceable.	Estimated net saving to Government.
Clothing, shoe, hat and rubber goods repairs.....	\$5,498,761.00	\$2,551,138.65	\$17,290,514.15	\$14,939,375.50
Dry-cleaning operations.....	1,008,430.00	248,731.95		132,953.24
Government laundry operations.....	72,901,172.00	2,012,333.40	3,437,444.38	1,425,111.64
Cot repairs.....	116,846.00	109,864.10	355,211.84	245,347.74
Tent repairs.....	19,103.00	61,407.62	723,631.57	662,223.95
Shelter-half repairs.....	49,225.00	13,569.30	85,024.01	71,454.71
Total.....				17,479,903.22

¹ On articles dry cleaned in Government shops.

² Operating costs.

³ Receipts and operating credits.

Disposition of waste material: Estimated value of material in organizations and property.. \$4,255,431.64

Cash sales:

Scrap material and second-hand clothing.....	11,440,313.14
Garbage.....	103,204.43
Dead animals.....	2,276.59
Manure.....	111,544.91
Condemned hay, straw, etc.....	36,394.52

11,693,741.61

Total..... 15,949,172.25
Total saving to Government..... 33,429,076.47

CIVILIAN EMPLOYEES.

Mr. ANTHONY. How do you pay; do you have many civilian employees on this work?

Col. WARFIELD. We have a few. For instance, at every tailor shop and shoe shop the policy is and has been to hire one civilian instructor, and he has under him a certain number of enlisted men when available: if enlisted men are not available, we have to hire the necessary civilians to do the work.

Mr. ANTHONY. How do you pay for them; out of what appropriation?

Col. WARFIELD. We pay for them out of the appropriation for civilian employees of the Quartermaster Corps. I am getting rid of civilian employees just as fast as I can replace them by enlisted men.

Mr. ANTHONY. They are not paid for under this paragraph of clothing and camp and garrison equipage?

Col. WARFIELD. No, sir; not at the present time. However, in estimates for the fiscal year 1922 civilian personnel has been included. As fast as I get an enlisted man trained and competent to take charge of the shop, I discharge the civilian man and put an enlisted man at the head of it. The trouble is, if I get a man trained as a good tailor or a good shoemaker, he can and does go out into civilian life and gets a place for three times as much as he can get in the Army.

Mr. ANTHONY. Have you any other general information you want to give us on this item before we go into details?

Col. HANNAY. Just generally. The amount for clothing in the estimate as presented is approximately \$10,500,000, plus about

\$2,100,000 which covers salvage operations. I think we do pay for some of the civilian labor from this item.

Col. WARFIELD. None of the civilian employees. The cost of all civilian employees we use is in these figures as to what it costs us. That is all paid out of that and it is all figured; but the actual appropriation that the civilian employees are charged up to is the appropriation for the pay of civilian employees.

CLOTHING FOR ENLISTED MEN.

Mr. ANTHONY. In asking for \$10,104,000 for clothing for enlisted men, that means you want to spend that much money for the cost of the manufacture of the materials you have on hand into uniforms?

Col. HANNAY. With the exception of certain things which, of course, we do not manufacture, such as shoes.

Mr. ANTHONY. Do shoes come under the head of clothing?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. This first item here of \$10,000,000: Tell us how many uniforms you intend to manufacture with it, and how many pairs of shoes you intend to buy, and so forth.

Col. HANNAY. I will take those up in detail.

Mr. ANTHONY. They are all included in this item?

Col. HANNAY. They are all included in this item; yes, sir.

Mr. ANTHONY. Go ahead and analyze that. What are you going to purchase out of that?

Col. HANNAY. We are going to purchase badges, campaign, 35,000 of them—campaign badges for enlisted men. The next item would be braid, forest green. That is the new insignia for enlisted men who were formerly officers. That amounts to \$840.

Breeches, cotton, olive drab, repair and manufacture of, will require \$360,000.

Mr. ANTHONY. For how many pair of breeches?

Col. HANNAY. Four hundred thousand pairs of breeches, at 90 cents per pair.

Mr. ANTHONY. That is the summer breeches?

Col. HANNAY. Yes, sir. Breeches, kersey lined—they are issued to the motorcyclists, heavy breeches for winter wear—we require 3,000 of those at a total cost of \$4,440.

Breeches, oil-skin: We require 3,000 of those at \$7,740.

Breeches, woolen, olive drab. We require 400,000 pairs of those at 90 cents, for manufacture, \$360,000.

Caps, leather. This is a new item—3,000 at \$2.20 each—\$6,600.

Mr. ANTHONY. Who is going to use the leather cap?

Col. HANNAY. The motorcyclists. Caps, service: We require 200,000 of those, costing \$1.35, exclusive of the fabric used in it. We furnish the fabric. We eliminate everything we can possibly furnish: the manufacturer furnishes the shop work, leather, and findings. They will cost \$270,000.

Caps, winter, for use in cold climates and in Alaska. We require 200,000 of those at \$1.10. We furnish the cloth that goes into them. That is \$220,000.

Chevrons, assorted: We require 642,480, costing \$179,894, or an average of 28 cents.

CHEVRONS.

Mr. ANTHONY. Do you furnish the chevrons for enlisted men, Colonel?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Have you made any recent purchases of chevron material?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. What have you bought this year?

Col. HANNAY. We have been manufacturing the new chevron which has recently been adopted with the blue back.

Mr. ANTHONY. How much money have you expended for that purpose or will you spend?

Col. HANNAY. I will put that in the record, we have not expended much.

NOTE.—Up to date, only \$88.63 have been obligated for chevrons from the appropriation for the fiscal year 1921. This excludes the amount of \$85,340.75 expended for shoulder-patch insignia. On account of the lack of funds, procurement of shoulder-patch insignia for the entire Army has been discontinued, as it would require approximately \$500,000 additional.

Mr. ANTHONY. Who changes the chevrons for enlisted men?

Col. HANNAY. The General Staff.

Mr. ANTHONY. So that you are liable at any time to get orders to change the chevron or some other article of the uniform, and you have immediately to provide it?

Col. HANNAY. We have to provide it. Of course, Mr. Chairman, the reorganization act provided for new grades and that made obsolete the majority of the chevrons we had on hand.

Mr. ANTHONY. Did you have much chevron material on hand?

Col. HANNAY. A great deal.

Mr. ANTHONY. How much?

Col. HANNAY. In the neighborhood of 28,000,000 chevrons.

Mr. ANTHONY. Twenty-eight million chevrons for noncommissioned officers?

Col. HANNAY. For all grades; for all kinds.

Mr. ANTHONY. Were they purchased during the war?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. What is the value of that chevron?

Col. HANNAY. They average 28 cents apiece.

Mr. ANTHONY. That would make eight or ten million dollars worth?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. In the face of having such a tremendous supply of chevron material on hand, do you mean some officials of the General Staff ordered a change in the type of chevrons that will make all this material worthless?

Col. HANNAY. They were chevrons already made up, and the reorganization act made most of them obsolete.

Mr. ANTHONY. How did the new reorganization act make them obsolete?

Col. HANNAY. Because it provided new grades and did away with most of the grades they were made for and they could not be converted. Some of them could be converted and some could have been used.

Mr. ANTHONY. But they will not be used?

Col. HANNAY. They will not be used, no, sir; although we are authorized to issue them until exhausted, the requisitions and demands coming in, come in for the new chevron.

Mr. ANTHONY. Let me understand that thoroughly. Did you change the type of chevron for the first sergeant, for instance?

Col. HANNAY. They are all changed; yes, sir.

Mr. ANTHONY. How did the organization act change the type of chevron for the first sergeant?

Col. HANNAY. It did not fix a first sergeant's grade; it fixed so many grades. There are seven grades of enlisted men. Six grades require chevrons.

Mr. ANTHONY. And you changed the designation then, for the first sergeant in the Army?

Col. HANNAY. He is simply graded. He acts as first sergeant, but he has a certain grade which draws a certain pay.

Mr. ANTHONY. And you have changed the type of chevron the first sergeant wears now?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Is it a change of design or just of material?

Col. HANNAY. It is a change of design. It has a blue back.

Mr. ANTHONY. It has a blue back?

Col. HANNAY. Yes, sir, which makes the old chevron obsolete.

Mr. ANTHONY. What kinds of back have the chevrons you already have?

Col. HANNAY. Olive drab.

Mr. ANTHONY. Why couldn't you continue to use the olive drab back.

Col. HANNAY. It is a matter of administration entirely.

Mr. ANTHONY. So there is a waste of \$10,000,000 approximately?

Col. HANNAY. Approximately.

Mr. CRAMTON. How large an army would it require to use 28,000,000 chevrons?

Col. HANNAY. They were procured, of course, for the war army and were left over after the sudden demobilization.

Mr. CRAMTON. How large an army would it require to use up 28,000,000 in a period of two years, say?

Col. HANNAY. A man uses, I should say, in the regular army—approximately a dozen pair of chevrons a year.

Mr. CRAMTON. And that is 25 chevrons per man, we will say.

Col. HANNAY. Yes, sir.

Mr. CRAMTON. That would require a million men entitled to wear chevrons to use them up in two years?

Col. HANNAY. Approximately.

Mr. CRAMTON. How large an army would it take to have a million men wearing chevrons.

Col. HANNAY. There are about 75 per cent of the total number of men that wear chevrons instead of a hundred per cent.

Mr. CRAMTON. Of the enlisted men?

Col. HANNAY. Of the enlisted force—approximately that.

Mr. CRAMTON. There would be that many?

Col. HANNAY. Yes, sir, of the enlisted men, including all grades, artificers and all such specialties—privates, first class, you know.

Mr. ANTHONY. What are you going to do with this old chevron material?

Col. HANNAY. We can not do anything with it, Mr. Chairman, except sell it for rags.

Mr. ANTHONY. Except change the type of the chevron back so that you can use it up. That would be possible, to change the type of the chevron back?

Col. HANNAY. By requiring the use of those that conformed, a good many of them could be used.

Mr. ANTHONY. Go ahead with your classification.

CLOTHING FOR TROOPS IN ALASKA.

Col. HANNAY. The next is clothing, Alaskan, for troops an Alaska, \$75,000, requiring 500 outfits at \$150 per man. Those are the special heavy fur-lined things.

We are asking nothing for cotton coats; we have sufficient. That is the denim.

We are asking for cotton coats, olive drab, \$250,000 to manufacture 250,000 coats at a dollar each. We furnish the material.

Coats, oil-skin: We are asking nothing.

Mr. ANTHONY. You have sufficient oil-skin coats on hand?

Col. HANNAY. We have sufficient on hand, yes, sir.

Coats, woolen, olive drab: We are asking for \$507,000, to manufacture 300,000 coats at \$1.69. We furnish the material.

Collars: We are asking for \$250,000 to buy 1,250,000 collars or stocks for the enlisted men.

Cords, hat, assorted: We have sufficient on hand.

Cravats, that is the black cotton cravat to wear with the flannel shirt: We are asking for \$38,500 to buy 175,000 at 22 cents.

Drawers, summer: We have sufficient on hand.

Drawers, winter: We have sufficient on hand.

We have sufficient winter gloves, woolen.

Handkerchiefs: We are asking for \$115,500 to procure 1,050,000 at 11 cents.

Hats, denim, we have sufficient; oil-skin, we have enough. Service hats, regular, \$360,000 to procure 120,000 at \$3 each.

Mr. ANTHONY. What is a service hat?

Col. HANNAY. That is the campaign hat.

Mr. ANTHONY. The old campaign hat?

Col. HANNAY. Yes; the felt hat.

Mr. ANTHONY. You still use that?

Col. HANNAY. Yes, we still use that. Helmets, woolen, mufflers, and toques, we are asking nothing.

Jerkins: We have those.

Shoe laces, we are asking \$36,000 to buy 1,200,000 at 3 cents.

We are asking nothing for mounted canvas leggings.

Woolen puttee leggings, we are asking \$814,000 to buy 370,000 at \$2.20.

We are asking nothing for moccasins; nothing for mittens, woolen.

We are asking for mittens, asbestos, \$20,000; this is a new item. We desire to procure 10,000 of them at \$2. They are for the use of machine gunners and tank operators.

For cap ornaments, we are asking \$8,000 for the procurement of 200,000 at 4 cents.

Collar ornaments, we are asking for \$10,000 to procure 250,000 at 4 cents.

During the war, Mr. Chairman, of course there were a great many ornaments procured, but they were procured with letters and numerical designations on them, which are of no use at present.

Overcoats, woolen, olive drab: We are asking for \$280,000 to manufacture 140,000 overcoats at \$2 each. We furnish the material.

We are asking nothing for overshoes; we have enough.

Raincoats, mackinaw: We are asking for \$742,500, to manufacture 110,000 raincoats at \$6.75 each.

Mr. ANTHONY. Did you not acquire a large number of raincoats during the war?

Col. HANNAY. We did, yes, sir; but we have none of them now. They have been absorbed.

Mr. ANTHONY. Were they sold?

Col. HANNAY. Some of them were sold. There were several hundred thousand raincoats sold, but they were raincoats procured of any kind and type, some of them black, and every other color, and nonmilitary in character.

We are asking for raincoats, mounted, \$225,000 to procure 30,000 at \$7.50.

Ribbons, campaign: We are asking for \$5,600 to procure 112,000 of them at 5 cents.

Service stripes: We are asking for \$21,000 to procure 420,000 of those at 5 cents. We manufacture them ourselves.

Shirts, cotton, olive drab: We are asking for \$300,000 to procure 200,000 of them at \$1.50. It takes the place of the old white cotton shirt, made to button the collar or stock to.

Flannel shirts, olive drab: We are asking for \$164,500 to procure 350,000 of them, to be manufactured by ourselves, with the cloth furnished, we ask for 47 cents each.

Shoes, service: We are asking for \$3,500,000 to procure 700,000 pairs of shoes at an average price of \$5; the latest obtained, a small quantity, were procured for \$4.09. The average procurement during the fiscal year is \$6.25 and it was first figured at that price. The Quartermaster General investigated the matter and he believes they can be procured at this price. Those shoes at \$4.09 were all small sizes; bids now received are according to size, with a very wide variation, of course, depending upon the size. The price of \$4.09 could not be used, as it would not represent the average; but the Quartermaster General thinks \$5 would represent the average for the coming year in all sizes, and it is believed they can be procured at this figure.

Mr. ANTHONY. How large a stock of shoes will that give you?

Col. HANNAY. I do not believe this will be any more than sufficient, in view of the fact that we are furnishing these shoes to discharged men. It is doubtful if it will be enough.

Mr. ANTHONY. You mean men who have already been discharged?

Col. HANNAY. Yes, sir; who are calling for equipment.

Gen. ROGERS. You wanted to be reminded when you came to this item in regard to limiting the time.

Mr. ANTHONY. Yes; I have just written down a note on that. How many pairs of shoes do you estimate you will have to furnish to men who have been discharged—men who have not already asked for them?

Col. HANNAY. We have figured that 700,000 men have not been supplied, and, of course, if all 700,000 men were supplied, it would

take the entire supply of the Army. So that we have allowed very little for that as a matter of fact.

Mr. ANTHONY. How many shoes have you on hand now, not issued.

Col. HANNAY. There has been a tremendous call for shoes during this fiscal year owing to that item. The average is four pairs per man per year.

Mr. ANTHONY. Four pairs?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. You can put that in the record.

Col. HANNAY. Yes, sir; we are sure, though, Mr. Chairman, that this will not be an excessive quantity of shoes. The total on hand is 778,000.

Mr. ANTHONY. So that you have practically gotten rid of the bulk of your war surplus?

Col. HANNAY. In these shoes we had no war surplus.

Mr. ANTHONY. Were not some shoes sold as surplus?

Col. HANNAY. Yes, sir; but they were the heavy shoe manufactured for use in the trenches and hob-nail shoes.

Mr. ANTHONY. You do not issue that hob-nail shoe now?

Col. HANNAY. No, sir. There was one pair issued per man for his field kit, but the enlisted man can not use those in the barracks; they would tear the floors all to pieces.

Mr. ANTHONY. So that you have one type of shoe you are issuing now?

Col. HANNAY. We are issuing one type of garrison shoe.

Stockings, cotton: We are asking for \$264,000 to buy 1,200,000 pair, at 22 cents.

We are asking nothing for woolen stockings; we procured enough this year to fill in sizes to last, we think, next year, both in heavy and light weights.

We are asking nothing for oil-skin suits.

Tags, identification: We are asking for \$5,600 to procure 560,000 of those, at 1 cent.

We are asking for identification-tag tape, \$1,400, to procure 28,000 yards, at 5 cents.

For denim trousers, work trousers, we are asking nothing; we have enough on hand.

We are asking nothing for cotton undershirts or winter undershirts.

We are asking for unionalls \$25,000, to procure 10,000 at \$2.50 each.

We are asking nothing this year for miscellaneous articles of clothing.

We are asking for findings for the manufacture of clothing, though \$525,000. It has been found to average about \$3 per man. This covers all findings used in the manufacture of clothing.

Mr. ANTHONY. How many plants does the Quartermaster Corps still maintain where they still manufacture clothing?

Col. HANNAY. Two.

Mr. ANTHONY. Where are they located?

Col. HANNAY. At Philadelphia and Jeffersonville, Ind.

Mr. ANTHONY. Did you have more than that during the war?

Col. HANNAY. I do not think so.

Mr. ANTHONY. Those are your two principal plants?

Col. HANNAY. Those are our only clothing manufacturing plants; yes, sir.

Mr. ANTHONY. Are they operating now?

Col. HANNAY. They are operating now; yes, sir.

Mr. ANTHONY. But probably with a comparatively small force compared with what you had there during the war?

Col. HANNAY. No, sir; we are endeavoring to manufacture the greater part of our clothing there.

Mr. ANTHONY. Will all of this clothing be manufactured then in those two Government plants?

Col. HANNAY. No, sir.

Mr. ANTHONY. Will any of it be let by contract?

Col. HANNAY. Part of it will be let by contract. The two sort of balance each other. We make the Quartermaster Corps manufacture to compete with the civilian, and in that way we hold down the clothing manufacturer and make the Quartermaster Corps plants get down to business methods.

Mr. ANTHONY. Are those two factories operated to capacity?

Col. HANNAY. They are at present; yes, sir; complete capacity.

CLOTHING FOR WARRANT OFFICERS.

Mr. ANTHONY. Let us go on to the next item. You are asking for \$20,000 for clothing for warrant officers, including raw materials for manufacture of same. Do they use a different type of clothing?

Col. HANNAY. Yes, sir; they use an entirely different uniform, made of officer's uniform material.

Mr. ANTHONY. So that you have to buy that cloth now?

Col. HANNAY. Yes, sir. They ordinarily have been buying their uniforms.

Mr. ANTHONY. The warrant officer is furnished his uniform the same as the enlisted man?

Col. HANNAY. In the mine planter service only.

Mr. ANTHONY. In the mine planter service only?

Col. HANNAY. This refers to the mine planter service only.

Mr. ANTHONY. Why is an officer of the Mine Planter Service on a different basis from the warrant officer of the Army?

Col. HANNAY. The warrant officer of the Army, other than mine planter, gets the allowances of a second lieutenant and provides his own uniform.

Mr. ANTHONY. The Mine Planter Service has a different type of uniform?

Col. HANNAY. A different type entirely.

Gen. ROGERS. The mine planters were warrant officers provided several years ago and they are in a little bit different class than these new warrant officers.

CLOTHING FOR ARMY NURSES.

Mr. ANTHONY. You are asking for \$125,000 for clothing for Army nurses, including raw materials for the manufacture of same. Do you furnish the uniform to the nurse?

Col. HANNAY. The initial uniform is furnished to the nurse and the Surgeon General estimates there will be 500 nurses inducted into the service.

Mr. ANTHONY. To do that they furnish the initial uniform?

Col. HANNAY. We furnish the initial uniform.

Mr. ANTHONY. What does the law provide they shall be furnished initially?

Col. HANNAY. Such allowance as the Secretary of War may direct.

Mr. ANTHONY. How much did you expend for that purpose this year?

Col. HANNAY. I will put that into the record.

NOTE.—The amount obligated for clothing for nurses, to date, is \$11,470.

Mr. ANTHONY. This shows you are only allotted \$35,000 for that purpose.

Col. HANNAY. We had stocks of these on hand supervening from the war.

Mr. ANTHONY. How many uniforms for Army nurses will \$35,000 furnish?

Col. HANNAY. One hundred and forty, but 500 is the Surgeon General's estimate of the number who will be inculcated into the service.

Mr. ANTHONY. How much apiece will that make?

Col. HANNAY. \$250.

Mr. ANTHONY. Is not that a pretty large amount for a uniform for a nurse?

Col. HANNAY. I will read what they get: They get two pairs of shoes, tan; one norfolk suit; six white uniforms for ward duty; one overcoat; one raincoat; one cape, lined, maroon; five waists, cotton, white; one waist, flannel; one shirt waist, silk; one hat, winter; one hat, summer; one pair kid gloves; one trunk locker; two sets insignia; two pairs insignia.

CLOTHING FOR DISCHARGED SOLDIERS, OTHERWISE THAN HONORABLY.

Mr. ANTHONY. You ask for \$160,000 for clothing, citizens, outer clothing to cost not exceeding \$40, to be issued to soldiers discharged otherwise than honorably.

Col. HANNAY. We have reduced that to \$90,000.

Mr. ANTHONY. That is for discharged prisoners?

Col. HANNAY. Yes, sir. The Adjutant General, as I stated this morning, has informed us that could be reduced to \$90,000.

FOR ALTERING, FITTING, CLEANING, AND REPAIRING CLOTHING.

Mr. ANTHONY. You ask for \$2,119,074.50 for altering, fitting, cleaning, and repairing clothing. This is the repair of clothing Col. Warfield handles?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Is that about the same amount you used this year?

Col. HANNAY. We used slightly less than that this year.

Mr. ANTHONY. Put in the amount that you will have used this year.

NOTE.—For fiscal year ending June 30, 1920, we used \$2,799,870.69; for fiscal year ending June 30, 1921, it should be about the same.

TOILET ARTICLES.

Mr. ANTHONY. The next is toilet articles, \$257,000. What toilet articles do you furnish the soldiers?

Col. HANNAY. Clothes brushes; brushes, hair; brushes, shaving; brushes, shoe; brushes, tooth; combs; dubbin for shoes.

Mr. ANTHONY. What is a dubbin?

Col. HANNAY. That is a leather preserver to put on the shoe. Housewives; mirrors, trench; polish, shoe; razors, and towels.

Mr. ANTHONY. Are you buying any toothbrushes or do you intend to buy any out of this appropriation?

Col. HANNAY. No, sir; we have enough on hand.

Mr. ANTHONY. How many have you on hand? The reason I ask that, I was informed by an American citizen traveling in Europe who attended one of those sales of American Army material purchased by the French Government in the settlement, that he saw offered about 250,000 prophylactic toothbrushes that looked to be in perfectly fine shape. He said they were going so very cheap he bought them and shipped them back to this country and I think he paid about 5 cents a piece for them or something like that. Why was not an article of that kind returned to this country?

Col. HANNAY. That is something I can not explain, Mr. Chairman.

NOTE.—The number of toothbrushes on hand is 1,641,659.

Mr. Sisson. What is a toilet kit; of what does it consist?

Col. HANNAY. All of these articles I have just enumerated are a part of the toilet kit.

Mr. Sisson. But I see here "housewives and toilet kits."

Col. HANNAY. These other things are not in the housewives kit—shoe brushes and clothes brushes, etc.

Mr. Sisson. What is a housewife?

Col. HANNAY. That is the little thing with needles and thread and buttons, and things of that kind issued to each squad.

FOR TEXTILE EQUIPMENT.

Mr. ANTHONY. You ask for \$1,300,000 for textile equipment, such as tents, paulins, bed sheets, pillow cases, mattress covers, cartridge belts, etc., including raw materials for manufacture of same.

Col. HANNAY. Yes, sir. There is a reduction in that item. We are allotted for the present fiscal year \$1,667,000.

Mr. ANTHONY. Did you use that amount?

Col. HANNAY. Yes, sir; we have used all of that money, practically.

Mr. ANTHONY. What became of the immense supplies of tent equipment?

Col. HANNAY. We are asking for no tentage, Mr. Chairman. I will read off the articles, if you desire, for which we are asking funds; but we are asking for no tentage.

Mr. ANTHONY. Let us know what you are going to manufacture out of that.

Col. HANNAY. We are going to manufacture 117 bags, water, for pack mules; \$1,174. Bags, water, sterilizing, 620; \$7,900. We are asking for nothing for bars, mosquito; nothing for blankets, olive drab; nothing for brassards. We are asking for \$82,250 for 350,000 pillow cases. They were not procured during the war, but now that

the troops are in permanent garrison, so to speak, they have to be supplied. We are asking nothing for colors, camp. We are asking for colors national, silk, \$689. We are asking nothing for national colors service.

Mr. ANTHONY. That is a flag, when you speak of colors?

Col. HANNAY. It is the one that is carried in the organization, which is differentiated from the flag proper. Regimental colors, engineers, silk: We are asking for \$1,438 to manufacture 8 of those. Regimental colors, infantry, silk: We are asking for \$9,778 to manufacture 65 of those. We are asking nothing for comforters. For mattress covers we are asking \$104,000 to manufacture 80,000 of those. That was another item not manufactured during the war.

Mr. ANTHONY. That is for barracks use?

Col. HANNAY. Yes, sir; covers to go over the mattress in the barracks to keep them clean. We are asking for covers for ward tents, to protect them when they are packed, \$2,436 to manufacture 200 of them. It is an expensive tent and the cover preserves it. We are asking \$83 to manufacture 108 Brigadier General's flags and \$62 to manufacture 72 Major General's flags. We are asking for \$10,850 for 4,340 distinguishing flags of all kinds for every organization to which it is issued, down to a company. We are asking nothing for National flags either post or garrison; nothing for National flags, post. Those are the two larger sizes. We are asking \$10,272 to manufacture 1,750 storm flags, which is the smaller size for normal use at posts. We are asking nothing for any of these tents, flies, and storage tents. For guidons, we are asking for \$4,500 to manufacture 3,000 guidons at \$1.50.

Mr. Sisson. What are they?

Col. HANNAY. The little flag you will see carried at the head of an artillery organization designating the battery. Head nets, mosquito—we are asking for \$7,300 to manufacture 1,400 of those for sentry use and use in Alaska. We are asking for mattresses—that is another large item, because there were none procured during the war and there were not sufficient on hand—\$459,372 to procure 58,333 at \$7.88. We are asking nothing for paulins. For pillows we are asking for \$79,650 to procure 87,500—another one of the items we did not procure during the war. We are asking nothing for tent pins. Nothing for shelter-tent poles; nothing for latrine screens. Bed sheets, another item not procured during the war, we are asking for \$472,500 to procure 350,000 of them at \$1.35. Nothing for chamois skins. We are asking for \$2,400 to procure 300 slings, color to carry the colors in. We are asking for the manufacture of standards, Field Artillery, regiment, silk, \$2,182 to manufacture 21 of them. We manufacture all those in the Quartermaster Corps. Standards, national, service, hunting, we are asking \$800 to manufacture 18. For standards, national, silk; we are asking for \$408 to manufacture 24; standards, regimental, silk, \$1,870 to manufacture 17. Standards, Signal Corps battalion, \$340 to manufacture three. We are asking nothing for tent stoves; we have sufficient; we are asking nothing for hospital tents, pyramidal tents, storage tents, wall tents, large and small. For sacks, harness, we are asking \$120,000 to manufacture 20,000 of those.

Mr. ANTHONY. For what?

Col. HANNAY. Harness sacks. It is found the harness is preserved in better shape.

Mr. ANTHONY. What kind of sacks are they?

Col. HANNAY. They are made of heavy canvass.

Mr. ANTHONY. That is to care for your surplus harness?

Col. HANNAY. Yes, sir. Not only surplus harness, but that with organizations.

Mr. ANTHONY. You are not asking anything more for cartridge belts?

Col. HANNAY. No, sir.

Mr. ANTHONY. You accumulated a large supply of cartridge belts during the war?

Col. ANTHONY. Yes, sir.

Mr. ANTHONY. How many of those have you?

Col. HANNAY. I will put that in the record.

NOTE.—The number of cartridge belts on hand is as follows:

Rifle, mounted, 385,895; dismounted, 986,933; pistol, 1,629,231.

Mr. ANTHONY. I wish you would put a statement in the record showing the amounts of the principal articles you have on hand that go under each one of these heads; not of the minor articles but just of the principal things; articles pertaining to clothing and equipment, the principal items.

Mr. Sisson. How much does all that amount to?

Col. HANNAY. These last items I just read amount to \$1,382,654. Those are the items under item No. 1409107.

Mr. ANTHONY. I would like to ask you in regard to the issue of clothing to enlisted men. Is it the intention of the War Department during the next fiscal year to adhere to the policy to furnish a man with the clothing he needs, or is there any talk of returning to the system of allowances?

Col. HANNAY. We have not been informed. Unquestionably the present system is much more expensive.

Mr. ANTHONY. You find the other one, where you give a fixed allowance, more economical?

Col. HANNAY. The fixed allowance is more economical.

Gen. ROGERS. I do not think the papers have gone forward, but I made a recommendation about three days ago to the General Staff to return to the clothing allowance, setting out the amount that would be saved by returning to the clothing allowance.

Mr. ANTHONY. How much do you think you could save by that?

Gen. ROGERS. I have not the papers with me, but I can put that in the record.

NOTE.—Amount per man per year that would be saved should a soldier be given a money allowance of \$282.23 for three years in lieu of the present issue of clothing in kind—\$28.89.

LEATHER PERSONAL EQUIPMENT.

Mr. ANTHONY. I wish you would. The next item is \$275,000 for leather personal equipment, including raw materials for manufacture. What does that cover?

Col. HANNAY. It covers an item of 9,000 bags, musette, at \$4 each; total cost \$36,000. That is a little bag used by the officer in France that they carried their entire equipment in—towels, soap, toilet articles, etc.

MAINTENANCE AND REPLACEMENT OF PERSONAL EQUIPMENT.

Then for maintenance and replacement of personal equipment, \$239,000. This personal equipment consists of the following: Carriers, pack, haversacks; cases, dispatch; belts, cartridge; cases, record, noncommissioned officer; carriers, hand grenade; carriers, rifle; covers, rifle; slings, gun; cutters, wire; carriers, wire cutters. It is for the maintenance of those.

Mr. ANTHONY. That is leather equipment to care for those articles?

Col. HANNAY. It is not all leather equipment; it is canvas and woven cotton fabric as well.

Mr. Sisson. Is that for the purpose of supplying those or for the purpose of maintaining them?

Col. HANNAY. For the purpose of maintaining them solely. No new procurement.

Mr. ANTHONY. Do you use about that amount for the current year?

Col. HANNAY. I will put that into the record.

NOTE.—The amount of money obligated for item M410107 from funds pertaining to the fiscal year 1921 is \$150,000.

Gen. LORD. \$300 up to January 4.

Col. HANNAY. We are asking for \$275,000. Practically none of that has been done. It is another one of those instances where delay piles up the cost. We have been using new equipment and it is becoming old, and next year it has to be repaired and put in shape.

This item is one of those things that came from the Ordnance Department. It used to be ordnance equipment and now it is handled by the Quartermaster Corps.

HORSE EQUIPMENT.

Mr. ANTHONY. You are asking for \$150,000 for horse equipment. What does that cover?

Col. HANNAY. That is another item transferred from ordnance.

Mr. ANTHONY. You have control in the Quartermaster's Department of all leather goods now, do you?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. That is because of the removal of the plant from Rock Island to Jeffersonville?

Col. HANNAY. That was the removal of the saddle and harness plant. They manufactured most of the ordnance harness there and we manufactured quartermaster harness at Jeffersonville; and now it is all consolidated for economy.

Mr. ANTHONY. Of what does the horse equipment consist?

Col. HANNAY. It consists of saddles, bridles, halters, feed bags, saddlebags, etc.

Mr. ANTHONY. How much did you spend during the current year for that purpose?

Gen. LORD. \$348.

Mr. ANTHONY. Is that because you have been using new stuff?

Col. HANNAY. That is a similar situation.

Mr. ANTHONY. You estimate it will take \$150,000 to repair what is on hand?

Col. HANNAY. It is based on the experience of the Ordnance Department in keeping it up.

Mr. DENT. How did you arrive at that estimate—per capita or how?

Mr. ANTHONY. It is all based on an army of 175,000.

Col. HANNAY. We had no records of our own and we had to get this from the Ordnance Department. From their experience they gave this as the per capita cost of the maintenance of these articles, when issued new, after a year's use.

MAINTENANCE OF HARNESS, ETC.

Mr. ANTHONY. You are asking for \$150,000 for harness, artillery, reel cart, and machine-gun cart.

Col. HANNAY. That is for maintenance also.

Mr. ANTHONY. Have you much of this equipment on hand—much of this harness on hand?

Col. HANNAY. No; not the spare parts. We have a great deal on hand for which we have to buy spare parts for upkeep.

Mr. ANTHONY. This is all for upkeep?

Col. HANNAY. This is all for upkeep and no new equipment whatever for any of this harness or anything of that kind.

Mr. ANTHONY. You will furnish a statement of the amount of harness on hand?

Statement showing quantity of harness and saddles on hand.

Harness, artillery, M1916, breast collar, lead.....	double sets...	30, 252
Harness, artillery, M1916, breast collar, wheel.....	do....	18, 652
Harness, ambulance or escadrille wagon, lead.....	single sets..	33, 821
Harness, ambulance or escadrille wagon, wheel.....	do....	32, 765
Harness, buckboard.....	do....	148
Harness, buckboard.....	double sets..	1, 688
Harness, cart, Quartermaster.....		10, 746
Harness, cart, dump, Quartermaster.....		1, 421
Harness, combat wagon, with collars and hames, lead.....	single sets..	2, 024
Harness, combat wagon, with collars and hames, wheel.....	do....	2, 480
Harness, with breast (Dutch) collar, ambulance combat, wheel.....	do....	8, 701
Harness, with breast (Dutch) collar, ambulance combat, lead.....	do....	5, 759
Harness, limber and caisson.....	do....	3, 277
Harness, delivery wagon.....	double sets..	24
Harness, single express.....		24
Harness, wagon, swing, without collars.....	single sets..	10
Harness, jerk line, 6 mule.....	do....	12
Harness, wagon, pontoon, wheel.....	do....	156
Harness, wagon, pontoon, lead.....	do....	202
Saddles, packers, riding, full rigged, 15½ inches.....		10, 278
Saddles, riding, skeleton rigged.....		1, 503
Saddles, McClellan, cavalry, M1904.....		138, 273
Saddles, McClellan, field artillery, M1904.....		44, 009

To date harness and saddles to the value of approximately \$25,000,000 have been declared surplus, all of which have been transferred to other Government bureaus or sold. There is no surplus on hand.

Col. HANNAY. Under these headings, yes, sir.

MISCELLANEOUS ARTICLES OF EQUIPAGE.

Mr. ANTHONY. Miscellaneous articles of equipage not listed: You are asking for \$1,495,000. Of what does that consist?

Col. HANNAY. That consists of blacksmith's aprons. We will require \$5,500 to procure 2,000 of those, at \$2.75. The item bedsteads single, has been eliminated by the Quartermaster General as already

stated by him. Brooms, corn; we will require \$140,000 to procure 175,000 of them at 80 cents. Brushes, scrubbing, \$35,000 to procure 175,000. Chairs, barracks, \$39,375 to procure 17,500, at \$2.25. Chaplain's equipment: We will require \$108,750 to procure 250 sets of chaplain's equipment, at \$435. This is a new item which has been authorized and consists of one desk, field; one altar, folding; one organ, folding; 300 books, song; one chest.

Mr. ANTHONY. The chaplains have nothing now?

Col. HANNAY. They have nothing except what has already been furnished to chaplains.

Mr. ANTHONY. He furnishes his own?

Col. HANNAY. He furnishes his own, or it has been furnished by welfare organizations.

Mr. ANTHONY. Or he takes that that exists wherever he is stationed?

Col. HANNAY. Yes, sir; he has had nothing of this kind.

Mr. ANTHONY. He could get along, probably, without this until some future time?

Col. HANNAY. They have, so far. Cots, canvas; we are asking nothing. Desks, field, we will require \$13,995 to procure 933 desks at \$15 each.

Mr. ANTHONY. What are these for?

Col. HANNAY. Field desks for records, the larger sized one for clerical work at regimental headquarters, and larger organization headquarters.

Mr. ANTHONY. The Army being being stationed at these camps very largely during the war, were they not outfitted with desks and things of that kind?

Col. HANNAY. At the cantonments they used, of course, an ordinary table. But this field desk is to take into the field, to put all of their records in it with the necessary stationery.

Mr. ANTHONY. What kind of a desk is it? A wooden desk?

Col. HANNAY. It is a fibre-covered desk about 2½ feet high.

Mr. ANTHONY. Is it for the use of the Army in time of peace or war?

Col. HANNAY. In time of war and in the field, when the Army goes in to the field. Of course for maneuvers, they have to take their records, which have to be kept up when they go in the field.

Mr. ANTHONY. This is not an absolutely necessary article of equipment, is it, though?

Col. HANNAY. The field desk is absolutely necessary if the troops go into the field.

Mr. ANTHONY. Have they had field desks heretofore?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. And this is a new outfit?

Col. HANNAY. No, sir; it is not a new outfit; it is for sufficient to meet the needs of the Army. They have had the field desks for a long time.

Mr. ANTHONY. If the Army is reduced they won't need quite that many.

Col. HANNAY. Not quite that many. It is one of those facts brought out several times which is based on the character of the organization prescribed rather than the strength of the Army. It is based on the number of organizations, because each organization has two.

Gen. ROGERS. That is what we call a specific article; something which is very hard to buy in an emergency, and I would suggest to the committee we would rather they would cut down on some other item than on an article it is hard to procure on short call.

Mr. ANTHONY. It is one of the things you would eliminate if you found you did not have enough money to go around. There are many other things of more necessary use.

Col. HANNAY. It is not essential to the supply of the Army. Goggles: We require \$3,000 to procure 6,000 of those, at 50 cents. Lockers, trunk: We require \$765,000 to procure 85,000 trunk lockers, at \$10.44.

Mr. ANTHONY. For what purpose are lockers?

Col. HANNAY. They are issued to all enlisted men. It is a little fiber-covered trunk.

Mr. ANTHONY. What do the enlisted men of the Army have now?

Col. HANNAY. They have this trunk.

Mr. ANTHONY. What becomes of the trunk of an enlisted man, when he goes out of the service?

Col. HANNAY. It is retained in the service. It is just issued to him while he is in the service.

Mr. ANTHONY. You need 85,000 lockers to supply wastage?

Col. HANNAY. Yes, sir; we have not sufficient on hand for an Army of 175,000.

Mr. ANTHONY. They are for barracks use?

Col. HANNAY. Yes, sir.

Gen. ROGERS. We had none of these during the war. They were not used during the war.

Col. HANNAY. Tape, adhesive: We require \$13,125 for this. It is used by the men to put on their heels when they have abrasions on their feet. We require \$350,000 for miscellaneous articles of equipage, which average \$2 per man. These consist of the following: Tanks, water, for Cavalry; pouches, for small articles; bandoleers; carriers for guidons and standards; shoe-fitting outfits; marking outfits; fencing equipment, company; shoes or casters for bedsteads; halyards; firemen's clothing, etc.

TAGS FOR MARKING PERSONAL EQUIPMENT.

The next item is \$17,500 to procure 1,750,000 tags for marking personal equipment.

FOR MUSICAL INSTRUMENTS.

Under the next item we have \$108,000 for musical instruments

Mr. ANTHONY. For musical instruments?

Col. HANNAY. For musical instruments and music stands, music pouches, and music for bands. We have spent \$271,514 in six months on this item. The Quartermaster General cut this down to the minimum he thought we could possibly get along with. There were no music stands purchased, for instance, during the war and they have to be supplied. And then the replacement of bugles, in addition to musical instruments, comes in this item.

Mr. ANTHONY. What became of the large number of musical instruments purchased during the war?

Col. HANNAY. They were sold, a large number of them.

Mr. ANTHONY. How were they sold?

Col. HANNAY. By advertisement.

Mr. ANTHONY. Do you sell material you are going to buy over again, now?

Col. HANNAY. Beyond two year's requirement, we sold at that time.

Mr. ANTHONY. What does it cost to outfit a band, regimental?

Col. HANNAY. The cost of equipping one band is \$5,519. There is very little in here for replacement of band instruments. Most of it for the procurement of string instruments authorized for bands which were not procured during the war.

MAINTENANCE AND REPAIR OF LEATHER GOODS.

Mr. ANTHONY. What is the mess equipment for which you ask \$39,000?

Col. HANNAY. That comes under the salvage department. It is under the same heading as the others; it is for the maintenance of those articles.

Mr. ANTHONY. Maintenance and repair of harness and leather goods.

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Have you the information there and can you tell us the number of saddles you have on hand, the number of sets of bridles and all that sort of thing?

Col. HANNAY. I will put that in the record.

Gen. ROGERS. Would you like that separated? There are two classes, the class that has been declared surplus and the class that is stock.

FOR PACKING AND HANDLING OF CLOTHING AND EQUIPAGE.

Mr. ANTHONY. We would like all that information. Packing and handling of clothing and equipage, you ask for \$750,000?

Col. HANNAY. Yes, sir; that is the packing and handling of all depots.

Mr. ANTHONY. That will be for the material you manufacture in these depots?

Col. HANNAY. Yes, sir; and also procured under contract, as it is crated and sent out to the troops.

Mr. ANTHONY. Let us see the changes now you make in the wording of the paragraph. You include "enlisted men of the enlisted Reserve Corps" the same as you have in other paragraphs. That is to take care of any possible issue to enlisted men in the Reserve Corps?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. I see you drop out the words "for members of the Reserve Officers Training Corps."

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Why?

Col. HANNAY. That is not computed by us, and we have not included it in our estimates. We are directed and informed that that is to be prepared by the War Plans Division of the General Staff.

Mr. ANTHONY. That will be provided for under the heading of the Reserve Officers Training Corps?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. You drop out "laundries"? Is that because that is provided for elsewhere?

Col. HANNAY. It is provided for in regular supplies. And on that same page there should be that change from \$40 to \$30 for discharged soldiers.

Mr. ANTHONY. Yes, I understand that. So that you believe you can get along approximately with \$18,000,000?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. In place of the \$30,000,000 that was originally estimated?

Col. HANNAY. Yes, sir. That, Mr. Chairman, can be effected by economy. It certainly will not provide anything to be wasted.

Mr. ANTHONY. And that \$18,000,000 is based on 175,000 men?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. What item do you want to take up next?

Col. HANNAY. Horses for Cavalry, Artillery, and Engineers.

Mr. CRAMTON. Is it necessary to continue that language about men interned as alien enemies? Have we gotten by that?

Gen. LORD. That is likely to grow.

Col. HANNAY. We are not sure they are all disposed of.

HORSES FOR CAVALRY, ARTILLERY, ENGINEERS, ETC.

Mr. ANTHONY. Let us take up the item of horses for Cavalry, Artillery, Engineers, etc.

Horses for Cavalry, Artillery, Engineers, etc.

Item No.	Name of item.	Apportioned fiscal year 1921 for 175,000 men.		Estimated fiscal year 1922 for 150,000 men.	
		Amount.	Capita.	Amount.	Capita.
1502.109	Horses for Cavalry, Artillery, and Infantry, Engineers, Signal and Hospital Corps, and for officers entitled to public mounts, purchase of, expenses incident to the purchase of horses for Cavalry, Artillery, and Engineers, etc....	\$1,106,000	\$6.32	\$359,000	\$2.393
1503.109	Horses for remounts, purchase of.....	100,000	.57	50,000	.333
1504.109	Horses for United States Military Academy, purchase of.....	5,000	.03	.....	.....
1505.109	Horses for service schools and staff colleges, purchase of.....	39,000	.22	.....	.....
1507.109	Expenses incident to the encouragement of breeding of riding horses suitable for the Army, including cooperation with the Bureau of Animal Industry, Department of Agriculture, and for the purchase of animals for breeding purposes and their maintenance.....	250,000	1.43	250,000	1.606
	Total.....	1,500,000	8.57	659,000	4.393

Horses for Cavalry, Artillery, Engineers, etc.—Continued.

Item No.	Name of item.	Estimated fiscal year 1922 for 175,000 men.		Estimated fiscal year 1922 for 200,000 men.	
		Amount.	Capita.	Amount.	Capita.
1502.109	Horses for Cavalry, Artillery, and Infantry, Engineers, Signal and Hospital Corps, and for officers entitled to public mounts, purchase of, expenses incident to the purchase of horses for Cavalry, Artillery, and Engineers, etc....	\$950,000	\$5.428	\$2,199,351	\$7.854
1503.109	Horses for remounts, purchase of.....	50,000	.285	50,000	.18
1504.109	Horses for United States Military Academy, purchase of.....				
1505.109	Horses for service schools and staff colleges, purchase of.....				
1507.109	Expenses incident to the encouragement of breeding of riding horses suitable for the Army, including cooperation with the Bureau of Animal Industry, Department of Agriculture, and for the purchase of animals for breeding purposes and their maintenance.....	250,000	1.428	250,000	.49
	Total.....	1,250,000	7.142	2,499,351	8.52

Col. HANNAY. The first item is a request for \$950,000.

Maj. SCOTT. That is for replacements only. We have on hand just enough animals for an Army of 175,000. It is based on that amount.

Mr. ANTHONY. For an Army of 150,000 you would not need as many as you have now?

Maj. SCOTT. No, sir. We would probably need some. We would dispose of some of the old animals, and we would still need some replacements. You see, this covers 18 months, really, that we are estimating for now. If we had to keep an animal over six months, we would sell and then buy back. It would pay to do that, because he would eat himself up in six or eight months.

Mr. ANTHONY. For an Army of 150,000 men you could proportionately reduce that?

Maj. SCOTT. It would proportionately reduce that, yes, sir.

Mr. ANTHONY. You probably would not need any horses for this purpose then, would you?

Maj. SCOTT. Yes, sir; we would need replacements for the eight months from now. I mean if we reduced to 150,000, we would immediately sell the surplus animals rather than keep them and issue them a year from now, after they had eaten up about \$300 worth of feed. In other words, it would pay to sell and buy back.

Mr. ANTHONY. That does not coincide with the policy advances in the statements made here, that we are carrying about 35,000 surplus horses and mules in the Quartermaster's Department at the present time.

Maj. SCOTT. We are not carrying them as surplus. As a matter of fact, in both horses and mules the Army is 25 per cent below the prescribed allowance.

Mr. ANTHONY. Yes, but the prescribed allowance is based on issues to organizations which have not the horses at this time.

Maj. SCOTT. Yes, sir; which have not drawn animals.

Mr. ANTHONY. And which could probably get along without any horses.

Maj. SCOTT. No, sir; they could not get along without horses any more than they could get along without guns.

Mr. ANTHONY. You have to have some; but, as explained a while ago, for instance, if you are going to equip all of these nine divisions with all the transportation that is required to move them in the field at any time it will take an immense number of animals.

Maj. SCOTT. The animal proposition is more or less complicated; it is not an article that can be bought and immediately issued. It takes six months after the animal is purchased to issue in any quantity in condition ready to go to work, sir. And if we sold off all the horses we would be in a condition where we could not get out and move. If men were brought in from the schools and different details and the Army of 175,000 concentrated on the border, for instance, they would be short of animals.

Mr. ANTHONY. We do not mean to imply you would want to take away all the horses, all the animals, from the Army and leave you all on foot; but if you are cut down a reasonable number there would be no reason why you could not expand in less than six months, would there?

Maj. SCOTT. Yes, sir. We have watched that very carefully all the way through the war, and the horses bought and shipped in any quantity are not ready to work inside of six months.

Mr. ANTHONY. I admit it takes six months to train a horse for Cavalry purposes after you buy him, but it does not take you anywhere near that long to train a mule you wish to use for draft purposes.

Maj. SCOTT. Yes, sir.

Mr. ANTHONY. Your Army mules then are different from the mule the farmer uses.

Maj. SCOTT. We have found the horses and mules we bought last June are just now getting over their sickness and ready for issue. The farmer usually buys his horses from the dealer after they have gotten over their sickness, and we get them from the dealer and out in the country, and the minute they are concentrated they get sick and they are not ready to issue in three months. The majority, at least 75 per cent of them, take six months, either horse or mule.

Mr. ANTHONY. There are certain chronic diseases they catch when they are concentrated?

Maj. SCOTT. Yes, sir.

Mr. ANTHONY. What are they?

Maj. SCOTT. Strangles, influenza, pink eye, and all different kinds of colds, one a little worse than the other.

Mr. ANTHONY. Are these epidemics of pink eye only peculiar to horses obtained off the market, or does it run through the stock at large?

Maj. SCOTT. When an animal is bought and concentrated at the shipping point and shipped any distance he will usually contract it. In connection with that, in the horses sold after the war, we sold 200,000 of them that had had their sickness, and the dealers and farmers who talked with me all over the country said they were very much surprised they could be put to work and do work without getting sick. The reason for that was they had been through that sickness and had become immune. This surprised all farmers because they were used to buying animals that got sick.

Mr. ANTHONY. What does it cost to purchase the various horses and mules you use?

Horses for Cavalry, Artillery, Engineers, etc.—Continued.

Item No.	Name of item.	Estimated fiscal year 1922 for 175,000 men.		Estimated fiscal year 1922 for 280,000 men.	
		Amount.	Capita.	Amount.	Capita.
1502.109	Horses for Cavalry, Artillery, and Infantry, Engineers, Signal and Hospital Corps, and for officers entitled to public mounts, purchase of, expenses incident to the purchase of horses for Cavalry, Artillery, and Engineers, etc....	\$950,000	\$5.428	\$2,199,351	\$7.854
1503.109	Horses for remounts, purchase of.....	50,000	.285	50,000	.18
1504.109	Horses for United States Military Academy, purchase of.....				
1505.109	Horses for service schools and staff colleges, purchase of.....				
1507.109	Expenses incident to the encouragement of breeding of riding horses suitable for the Army, including cooperation with the Bureau of Animal Industry, Department of Agriculture, and for the purchase of animals for breeding purposes and their maintenance.....	250,000	1.428	250,000	.9
	Total.....	1,250,000	7.142	2,499,351	8.926

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Maj. SCOTT. That is for replacements only. We have on hand just enough animals for an Army of 175,000. It is based on that amount.

Mr. ANTHONY. For an Army of 150,000 you would not need as many as you have now?

Maj. SCOTT. No, sir. We would probably need some. We would dispose of some of the old animals, and we would still need some replacements. You see, this covers 18 months, really, that we are estimating for now. If we had to keep an animal over six months, we would sell and then buy back. It would pay to do that, because he would eat himself up in six or eight months.

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Mr. ANTHONY. What does it cost to purchase the various horses and mules you use?

Maj. SCOTT. We pay \$225 now for a cavalry horse and \$250 for a draft horse and artillery horse.

Mr. ANTHONY. What do you pay for mules now?

Maj. SCOTT. The estimated price we gave was \$300. Of course these prices were based on last year, when the price of stock was very high. For instance, mules were selling around \$400 to \$500 in St. Louis to go south to the cotton States.

Mr. ANTHONY. The market is lower now?

Maj. SCOTT. The market has dropped somewhat on the mules but none at all on the cavalry horse.

Mr. ANTHONY. How many animals will this \$950,000 purchase?

Maj. SCOTT. \$925,000 will buy 4,000 animals.

Mr. ANTHONY. You have an item of \$50,000 for horses for remounts. What class of horse is that?

Maj. SCOTT. That is a horse which eight or nine years ago the Bureau of Animal Industry started a system of breeding in which the Government was to buy the colts that were suitable and we entered into an informal agreement with the farmer. We have attempted to get that canceled and two-thirds of them have canceled it. For instance, we needed \$150,000 for that last year. This year we canceled two-thirds of those and it only leaves \$50,000.

Mr. ANTHONY. That \$50,000 is for fulfillment of contracts you have out?

Maj. SCOTT. Not contracts, but merely an agreement.

Mr. ANTHONY. A moral obligation?

Maj. SCOTT. A moral obligation; yes, sir.

Mr. ANTHONY. So you would want to buy those whether you needed them or not?

Maj. SCOTT. Yes, sir. We would buy those before we used any of the \$925,000, but we will surely need them.

Mr. ANTHONY. You figure you have all the horses you need for the United States Military Academy and service schools and staff colleges?

Maj. SCOTT. We issue those annually from horses we have on hand.

FOR EXPENSES INCIDENT TO BREEDING OF RIDING HORSES.

Mr. ANTHONY. You ask \$250,000 this year for expenses incident to the encouragement of breeding of riding horses suitable for the Army, including cooperation with the Bureau of Animal Industry, Department of Agriculture, and for the purchase of animals for breeding purposes and their maintenance. How much did you expend for that purpose during the current year?

Maj. SCOTT. We only got that last July and, of course, the breeding season was practically over. The most of that will be expended this year and it will be expended, of course, during the spring.

Mr. ANTHONY. What do you buy with that money?

Maj. SCOTT. That is expended in different ways. We buy stallions and maintain the stallions and ship the stallions to the breeding points. We procure at each breeding point a civilian who is prominent as a horseman in that community and he operates the stallion for us. We first had a plan devised whereby he could operate a stallion and take the stud fees for his work but that is contrary to law. The stud fees have to be collected and turned into the Treasury.

and we now pay the man when he operates the stallion. We pay him and he then collects the stud fee and turns it in. That about balances the pay.

Gen. LORD. The amount paid in under that item was \$95,594.63 up to January 4.

Mr. ANTHONY. What breeds of stallions do you get?

Maj. SCOTT. We get different breeds. We have five Arabian, 7 standard bred, 7 saddle bred, and 88 thoroughbred. We try to get the type of saddle stallion the people usually want.

Mr. ANTHONY. How are those distributed over the country now?

Maj. SCOTT. We have applications for 450 from 44 States. We have made definite arrangements for a proportionate amount according to the number of applications in each State. They are not definitely sent out yet. For instance, Virginia already had a great many of them. We took over from the Bureau of Animal Industry stallions and in order that there will be no criticism, every stallion it had goes back exactly where it was before. Virginia probably has 25 of those stallions. The other States will get quite a number. For instance, California now has six; there are two or three placed in Mississippi, Kansas, New York, Pennsylvania, Texas, and some in Alabama. There are two in practically every State of the Union except three or four States up in New England.

Mr. ANTHONY. The Government maintains its ownership in those stallions?

Maj. SCOTT. Yes, sir.

Mr. ANTHONY. And the community he goes to gets the use of the stallion?

Maj. SCOTT. Yes, sir.

Mr. ANTHONY. Does the farmer pay a fee?

Maj. SCOTT. The farmer pays a fee; yes, sir.

Mr. ANTHONY. And the man who operates the stallion receives these fees for his expense in caring for the stallion?

Maj. SCOTT. No, sir; it is contrary to law that any one can operate a Government agency and derive benefit therefor. In other words, we have to put him on a status by which we pay him out of the appropriation. For instance, we charge a \$10 stud fee. The agent collects that and turns it in to our officers and we turn it into the Treasury. Then we take \$10 out of the \$250,000 and give it to him, instead of letting him take the fee. We make \$10 for each mare properly bred.

Mr. ANTHONY. You get reports from them?

Maj. SCOTT. We have five remount purchasing and breeding headquarters now in the United States, and at the time we breed the horses we also look over the stallions and the colts and supervise the work when purchasing animals.

Mr. ANTHONY. And the fee for the use of that horse is a nominal amount for that class of horse?

Maj. SCOTT. Yes, sir.

Mr. ANTHONY. So that every breeder gets a certain advantage from having the horse furnished to a community?

Maj. SCOTT. Yes, sir. We had four or five stallions given to us that were operating for \$250 to \$500 service fee that are now put to the use of the farmer for \$10. The reason we charge a fee to the farmer instead of letting him have it free is because if he pays

something then he is careful to bring the mare back at the right time, and free service has not been satisfactory in the Bureau of Animal Industry.

Mr. ANTHONY. Do you think this experiment is paying for itself?

Maj. SCOTT. Yes, sir; I think so, sir. It is a very popular plan. The stallions are out four months of the year for the use of the farmers and breeders, the other eight months are in our depots, and we make use of them as military horses to replace a gelding. We use them for patrols, drilling, and the necessary guard duty of the post. In other words, the stallion earns his living in the Army in the winter and goes out in the spring where he will do the civilians and breeders in the country the most good.

Mr. ANTHONY. Will this \$250,000 be used for the purchase of new animals?

Maj. SCOTT. Yes, sir.

Mr. ANTHONY. Nearly all of it will be used for the purchase of new animals?

Maj. SCOTT. Yes, sir. A large part of it. We could only get out 150 this year. The \$250,000 ought to enable us to get out probably 100 or 150 more next year.

Mr. ANTHONY. The whole expense of shipping, the freight, also comes out of this?

Maj. SCOTT. Yes, sir; that all comes out. The entire scheme is a thing that is more or less obligated now, too, sir, because we have made arrangements to put these stallions out and have agreements with people all over the country under this, and to break it up would cause us great embarrassment.

Mr. DENT. That is under the present appropriation, though?

Maj. SCOTT. Yes, sir. But breeders hope it will be permanent.

Mr. DENT. You already have an appropriation to cover that?

Maj. SCOTT. We have an appropriation for this year, and this is for the next year, and is a very important item if the encouragement of breeding is to be really effective. To stop it suddenly or to cut it too low would be equivalent to throwing away the amount already invested in the scheme.

TUESDAY, JANUARY 11, 1921.

WATER AND SEWERS AT MILITARY POSTS.

STATEMENTS OF BRIG. GEN. J. M. CARSON, CHIEF OF THE CONSTRUCTION SERVICE OF THE QUARTERMASTER CORPS. AND LIEUT. C. B. F. BRILL, CONSTRUCTION SERVICE. QUARTERMASTER CORPS.

UNEXPENDED BALANCE.

Mr. ANTHONY. General, you are asking in this bill for a total of \$6,796,577 for water and sewers at military posts. There was appropriated under this heading for the fiscal year 1921, \$4,000,000. Will you tell us how much has been allotted for that purpose during the current year and how much you have spent for that purpose, up to the last available date?

Gen. LORD. The total amount allotted up to January 4, 1921, was \$3,137,332.80.

Mr. ANTHONY. How much have you expended up to that date?

Lieut. BRILL. We have a balance not allotted of \$607,750. The free balance on December 31 was \$625,160.80.

Mr. ANTHONY. Will you have an unexpended balance under this heading?

Lieut. BRILL. This amount I referred to a moment ago will have to carry us the rest of the year.

Mr. ANTHONY. Have you provided for the expenditure of that unallotted balance?

Lieut. BRILL. It has not been allotted yet, because we have only made allotments to cover half a year. So we have the latter half of the year to go.

Gen. CARSON. The \$607,000 available must meet all demands made upon it for the rest of the year, plus any subsequent charges at the different posts.

Mr. CRAMTON. In which half of the year are your expenditures normally the heavier?

Gen. CARSON. I think in the latter half. In the first half of the year we are naturally holding back, especially where we estimate. It takes in part of the winter only. The latter half takes in the greater part of the cold weather in most places, and toward the end of the fiscal year we know better what the unexpected demands are going to be. We must hold in reserve certain amounts for these unexpected demands.

Mr. ANTHONY. Does this estimate depend largely upon the size of the Army?

Gen. CARSON. No, sir; it is largely regulated by the stations. The size of the Army has very little to do with it.

Mr. ANTHONY. Are there any new construction projects embraced in this estimate for the building of water plants or large sewer systems?

Gen. CARSON. In this item the only one of that kind is noted in the bill, for the installation of a fresh-water supply system at Ford Island, in Hawaii.

Mr. ANTHONY. All the rest is for maintenance and repair?

Gen. CARSON. And operation; yes, sir.

INSTALLATIONS AT FORD ISLAND AND FORT KAMEHAMEHA, HAWAII.

Mr. ANTHONY. Tell us about the purpose of the expenditure at Ford Island and Fort Kamehameha. What is the necessity for that? These are Coast Artillery posts, are they not?

Gen. CARSON. Fort Kamehameha is a Coast Artillery post, but Ford Island is an air station.

Mr. ANTHONY. Where do they get their present water supply?

Gen. CARSON. It all comes from some wells on the mainland and is piped out. Both the naval station and Fort Kamehameha are in the same situation as to water.

Mr. ANTHONY. The naval station and those two Artillery posts get their own water supply at the present time from wells?

Gen. CARSON. The existing water supply for Fort Kamehameha comes from Fort Shafter.

Mr. ANTHONY. It is piped from Fort Shafter?

Gen. CARSON. Yes, sir; one pumping plant delivers water from artesian wells through a 6-mile 8-inch pipe line to Fort Kamehameha.

Mr. ANTHONY. Why not continue that?

Gen. CARSON. It is not sufficient to extend it to Ford Island. Ford Island is to be jointly used by the Army and Navy Air Services.

Mr. ANTHONY. That is an island in Pearl Harbor?

Gen. CARSON. In Pearl Harbor; yes, sir. The amount asked for here is for the Army's share of the water development. The Navy has asked for a similar amount.

Mr. ANTHONY. Has the work been commenced on it?

Gen. CARSON. I think not; not under this item.

Mr. ANTHONY. They could get along for another year without the expenditure?

Gen. CARSON. The representations from the people there are that they can not unless the development of the station is stopped.

Mr. ANTHONY. You mean further expansion?

Gen. CARSON. The completion of the station. It is partly completed now. For example, if the Navy proceeds with the completion of the station as a naval station they will have to bear the whole expense of the water supply unless we take up our part.

New construction projects, to be executed from the appropriation "Water and ice" for fiscal year 1922.

Ford Island, Hawaii, Army share of joint Army and Navy water-supply system.....	\$108,423.
Fort Leavenworth, Kans., installing plumbing for proposed swimming pool.....	
Fort William H. Seward, Alaska, reconstruction of water pipe line.....	

MEMORANDUM.

Ford Island, Hawaiian Territory: Joint Army and Navy water-supply system. Ford Island, Pearl Harbor Naval Station, and Fort Kamehameha Military Reservation, Hawaiian Islands, \$108,423.

1. It is proposed to construct a water-supply system for providing Ford Island, Pearl Harbor Naval Reservation, Pauloa Naval Reservation, and Fort Kamehameha Military Reservation with water by the following system:

Three 12-inch artesian wells to be drilled on the Aiea Military Reservation, 300 feet east of the railroad station. A pumping plant will be located over the well and connections made between it and the other two wells. Three centrifugal pumps, each with a capacity of 800 gallons per minute, will be located in this station. From here 11,750 feet of 12-inch class B pipe, approximately 6,000 feet of which would be laid under water, will lead to a distribution point located near the 250,000-gallon steel tank of the naval reservation. This line would deliver a maximum of 2,250,000 gallons daily at a pressure head of 205 feet at this point. From here one extension of 4,650 feet of 6-inch class C pipe would lead to Ford Island, the 100,000-gallon storage tank located there. Another line of 5,750 feet of 6-inch class C pipe to be laid to Fort Kamehameha, there connecting with the existing Shafter-Fort Kamehameha pipe line at point D on the map.

2. It is calculated that the Army will require 750,000 gallons of water daily from this system and that the Navy will require 1,500,000 gallons daily. On this basis the cost has been distributed between the Army and the Navy in the proportions of approximately one-third Army and two-thirds Navy.

3. The existing water supply for Fort Kamehameha Military Reservation is piped from Fort Shafter, where a pumping plant delivers water from artesian wells through a 6-mile 8-inch pipe line to this post. About 5 miles of this pipe line is on private property or along a public highway. It is at no place deeply buried, as the terrain permits the laying of pipe very close to the surface. In time of hostilities this line would have to be guarded with extreme care, as one man with a sledge hammer

could in a large measure render Fort Kamehameha untenable by breaking this pipe line. There are no storage facilities whatever at the post. The Pearl Harbor Naval Station now receives its water via a 4-mile 8-inch line, 3.5 miles of which are on private property or along public highway. The water is delivered to this pipe line from an artesian well located in the Moanalua Valley by three pumps located at the well and operated by induction motors which are controlled from the naval station. In case of hostilities this pumping station and pipe line would have to be guarded just as carefully as the Fort Shafter-Fort Kamehameha line. The storage facilities at the naval station are a 250,000-gallon steel tank and a 1,000,000-gallon concrete reservoir. Ford Island is supplied from two artesian wells located on the island. The water from these wells contains salt (sodium chloride) ranging from 47 to 48 grains per gallon. This is so high that the salt is very perceptible to the taste. Its use is justified only because there is no other water available, and is a temporary measure only. It can in no sense be considered at all permanent.

4. The present water consumption at Fort Kamehameha averages about 435,000 gallons per day. It is planned to station two additional companies of Coast Artillery at this fort, which will increase the population approximately 230 persons, or a total population, after the increase, of 1,330 persons. It is estimated that this population will require 500,000 gallons of water daily. At Ford Island accommodations are being constructed for the Army to provide for an eventual population of approximately 700 persons. It is estimated that this population will require 275,000 gallons of water daily. The Pearl Harbor Naval Station during the first nine months of 1918 consumed an average of over 400,000 gallons per day, and during the month of August, 1918, an average of 580,000 gallons per day. The public-works officer at the station states that the consumption of water there is constantly increasing, and that there should be at all times a supply of at least 1,000,000 gallons per day in order to take care of ordinary requirements and to repair and water any ordinary fleet of ships that might happen to come in. The present total capacity of the naval water supply system is reported by local officers to be 720,000 gallons per day. More recent recommendations by a board of Army and Navy officers, convened at the island, reports that the naval station needs 1,500,000 gallons daily.

5. The necessity for installing this new system of water supply for these points arises from the following principal factors:

(a) The vulnerability of the present supply systems, both of which could be easily damaged beyond quick repair by one man with a little dynamite.

(b) The necessity of providing water to Ford Island from the mainland due to the unsuitability of the local supply for drinking purposes.

(c) The increasing consumption of the naval station which makes necessary an increase of at least 280,000 gallons per day, and if the latest figures prove correct of at least 780,000 gallons per day.

6. This project has been thoroughly investigated. It was presented to the committees of Congress at the last session but was not allowed by them. It is being represented by both the Army and naval authorities at this time because of the extreme urgency of the matter. With each passing year, and especially so at the present time because of the rapid development of the naval station on Ford Island and of the Pearl Harbor Naval Reservation, this project becomes more and more necessary. It is believed that this matter is of such importance that it should by all means be authorized at once.

MEMORANDUM.

Fort Leavenworth Disciplinary Barracks, swimming pool, B. and Q., \$22,000; R. S., \$5,100; W. and S., \$3,597.

1. It is proposed to construct a semifireproof building 56 by 140 feet, containing a swimming tank 40 by 100 feet, dressing room, shower baths, toilets, administration and utilities rooms, heating, plumbing, electric wiring, and fire protection. The estimate does not include labor and such other material as the disciplinary barracks can supply.

2. This case originated by the Secretary of War, who on July 3, 1919, directed the commanding officer of the disciplinary barracks to submit plans for the building as above outlined. It was desired to construct this building at once, but this could not be done until special authorization could be obtained from Congress.

3. This swimming pool is highly desirable to aid in training the inmates of the disciplinary barracks in the habits of cleanliness and in restoring their morale. It is believed that the benefits which will be derived by the inmates of the disciplinary barracks from this swimming pool will be sufficient to more than repay for the cost of constructing it.

4. This has been personally recommended by the Secretary of War after a visit to Fort Leavenworth.

5. This project was presented to Congress at the last session and is re-presented herewith because of its urgency.

MEMORANDUM.

Fort William H. Seward, Alaska, reconstruction of water pipe line, \$5,000.

1. It is proposed to reconstruct the water-supply pipe line of this post and to support it on piles to be driven in the Chilkat River by means of a U-shaped hook.

2. This project is fully explained in the remarks of the commanding officer which were appended to the requisition and a copy of which is attached hereto.

The source of the water supply at Fort William H. Seward, Alaska, is a concrete dam constructed across a mountain stream beyond the Chilkat River, which river is 2 miles in width. The dam is located about one-half mile further on up the side of a mountain. From that point the water is conducted through a 6-inch water main leading down the side of the mountain and across the Chilkat River to the post, terminating in the water tank (post structure No. 41) from which distribution is made throughout the post.

The above-described pipe line was laid across the Chilkat River in 1910, and guaranteed to last five years. It has, therefore, outlived that guarantee by five years. In fact it is stated by persons who were then living at this post that the pipe broke before its completion.

The point where this pipe line crosses the river is affected by the tide, a variation of about 12 feet in depth. The river is constantly wearing away new channels and changing its bed; the present channel being at least three-quarters of a mile from the channel six months ago, and as this pipe line was merely laid along on the bottom of the river, without support of any kind, it may be readily understood how the changing action of the river and the variation of the tide, further aggravated by fields of ice coming down from mountain glaciers, is a strain which no unsupported pipe line of any size can stand for any great length of time. At low tide, just after or during a time when the river is changing to an entirely new channel, the pipe may be seen hanging unsupported across the old channel 40 to 60 yards in width, and at the same time the river wearing away the bottom, the pipe line's only support at some point further on.

For several years past, especially in late summer and fall, when the floating fields are more numerous, this pipe line has caused considerable trouble. Breaks occur in numerous places, and, as a result, the water is cut off for a month or more while the pipe line is undergoing repairs. During these periods the garrison depends on seepage water which collects in a reservoir within the post and is pumped into the water tanks, an inadequate supply, but insuring at least a tank full for protection.

As all things come to an end in time so will a time arrive when repairs can no longer be made on the pipe line crossing the Chilkat River. It has been pulled out in sections from depths of 6 to 15 feet of salt water, sand, and mud, and patched until the action alone causes breaks in places further on, at which points the pipe line must be pulled up and patched again. The entire situation has arrived at a point where serious consideration is necessary if this post is to continue to depend on that source of water supply.

The amount herein asked for is considered a conservative estimate for placing the pipe line in a serviceable condition, such as will insure service for an indefinite number of years.

It is proposed to drive piles along the lower side of the pipe line in the Chilkat River and support the pipe line to these piles by means of an iron band around the head of each pile, terminating in a U-shaped hook or support to receive the pipe. The piles should be tarred or well treated with creosote, and driven down into the river bottom, not less than 20 feet apart. This will form a permanent support, which, it is believed, will prevent the constant bending and breaking of the line by the causes above described. After a thorough inspection and study of the conditions this is believed to be the only solution.

The work will be attempted by purchase of materials and hire of labor, using the services of the post plumber and engineer as overseers, as there is no known person in this locality with whom a contract of such nature could be made with any assurance of competent service, but, for the best interests of the service, it is thought that an officer of the Engineer Corps or some other thoroughly competent person should be

ent to this post to take entire charge of this affair and push it rapidly to completion, as this work can only be performed with any assurance of success prior to the beginning of winter, which may be fixed at the first or not later than the middle of November.

Early favorable action is urgently recommended. Should breaks occur this fall beyond our means of repair, which is expected, the post will be without water during the ensuing winter, as the seepage water freezes during winter, thereby entirely destroying that only remaining source of water supply.

The accompanying drawing is believed to be sufficient to show the location and, with the foregoing explanation, the nature of this proposed work. It may be further stated that, on account of the mud and soft sand, all work must necessarily be performed at high tide. A pile driver and necessary apparatus for lifting the pipe line will be rigged aboard a scow, from which scow all work will be performed. The scow will be towed to and left on the job until the work is completed.

E. F. KOENIG,
Major, Twenty-first Infantry.

ITEMS OF ESTIMATE.

Mr. ANTHONY. You might itemize this estimate and show us the headings under which you propose to expend the money. You might put the itemization in the record.

Gen. CARSON. I will do that.

(The matter referred to is as follows:)

Water and sewers at military posts.

Name of item.	Apportioned fiscal year 1921 for 175,000 men.		Estimated fiscal year 1922 for 150,000 men.		Estimated fiscal year 1922 for 175,000 men.		Estimated fiscal year 1922 for 280,000 men.	
	Amount.	Capita.	Amount.	Capita.	Amount.	Capita.	Amount.	Capita.
Incinerators and other buildings for the disposal of sewage.....	\$50,000	\$0. 28	\$75,000	\$0. 50	\$75,000	\$0. 428	\$75,000	\$0. 267
Water and sewage systems and all plumbing in buildings where not specifically otherwise provided for, including all piping for sprinkler systems, purchase and installation of.....	250,000	1. 43	117,020	. 78	117,020	. 668	117,020	. 42
Fire apparatus, including fire-alarm systems.....	100,000	. 56	40,000	. 266	40,000	. 228	40,000	. 14
Fire apparatus, including fire-alarm systems and external fire alarms.....	75,000	. 42	80,000	. 533	80,000	. 457	80,000	. 285
Water and sewage systems, including chemicals for purification of water, fuel, and sewage, and all plumbing in buildings where not specifically otherwise provided for, including all piping for sprinkler systems.....	2,525,000	14. 42	4,709,557	31. 397	4,709,557	26. 911	4,709,557	16. 816
Water, purchase of, at posts and stations.....	1,000,000	4. 72	1,775,000	11. 833	1,775,000	10. 142	1,775,000	6. 33
Total.....	4,000,000	22. 857	6,796,577	45. 31	6,796,577	38. 837	6,796,577	24. 273

Mr. ANTHONY. Was this item reduced any when we requested estimates for the figure of 175,000 men?

Gen. CARSON. No, sir.

INCINERATORS AND OTHER BUILDINGS FOR THE DISPOSAL OF SEWAGE.

Mr. ANTHONY. For instance, take this item for incinerators and other buildings for the disposal of sewage, for which you are asking \$75,000. Do you propose to build new incinerators or just maintain the ones you have?

Gen. CARSON. Maintain the ones we have and, where necessary and the money is available and we can do so, to put up new ones.

FOR PURCHASE AND INSTALLATION OF SPRINKLER SYSTEMS, ETC.

Mr. ANTHONY. You are asking for \$117,000 for water and sewage system and all plumbing in buildings where not specifically otherwise provided for, including all piping for sprinkler systems. You want \$117,030 for purchase and installation of those systems. Are you going to install any considerable number of sprinkler systems?

Gen. CARSON. We do not expect to do so; no, sir. But unless that is put in the bill we will be somewhat helpless in making repairs.

FOR INSTALLATION OF FIRE APPARATUS AND ALARM SYSTEMS, ETC.

Mr. ANTHONY. You are asking for \$40,000 for the purchase of fire apparatus, including fire-alarm systems. Do you have to purchase new fire apparatus?

Gen. CARSON. It might be necessary; yes, sir.

Mr. ANTHONY. Did you not find yourself at the close of the war with a pretty complete supply of fire apparatus at all these camps?

Gen. CARSON. Yes; I think we did.

Mr. ANTHONY. We have abandoned a good many of them. What becomes of the fire-fighting equipment at the abandoned camps?

Gen. CARSON. That has been used at other places where they did not have that kind of equipment.

Mr. ANTHONY. Has any of it been sold?

Gen. CARSON. Not that I know of; that is, any of it that is serviceable. We have been very careful to preserve all the fire-fighting apparatus up to date that is in good shape.

Lieut. BRILL. The item for fire apparatus does not include anything like a fire engine. We have plenty of those. It is to replace hose. We found that when a camp is given up there is very little of it; hose that is any good, or is in good enough condition to be sent to another camp. That item is for the minor things of that kind.

Mr. CRAMTON. What do you pay for hose?

Lieut. BRILL. I can put that figure in the record.

Cost of fire hose.

2½-inch single-jacket cotton hose, rubber lined.....	per foot	\$
Double jacket, 2½-inch cotton hose, rubber lined.....	do..	.
2-inch unlined, linen hose.....	do..	.
1½-inch unlined linen hose.....	do..	.
2½-inch suction hose.....	do..	.
Three-fourths-inch chemical hose, 50-foot length.....	each	.
1-inch chemical hose, 50-foot length.....	do	.

Mr. ANTHONY. You have apparently two items here that cover one for fire apparatus, including fire-alarm systems for \$40,000 and another for fire apparatus, including fire-alarm systems and exten-

fire alarms, amounting to \$80,000. What is the necessity for duplicate items there?

Lieut. BRILL. One is for the installation of the fire-alarm systems, and the new apparatus, and the other is for the maintenance and repair of existing apparatus.

Mr. ANTHONY. You contemplate the installation of new fire-alarm systems?

Lieut. BRILL. Yes, sir: there are some few. In one particular case, at Fort Mason, Calif., in the warehouses which do not have sufficient fire-alarm systems, an inspector has reported that they must be installed there for fire protection.

APPARATUS AT WALTER REED HOSPITAL.

Mr. ANTHONY. We recently had quite a fire at the Walter Reed Hospital. Is the fire-alarm system and the fire apparatus there under your charge?

Gen. CARSON. Yes, sir.

Mr. ANTHONY. Was there any trouble there with the fire-fighting equipment?

Gen. CARSON. The only trouble that was discovered—and our investigation was not absolutely positive about that—was the failure of the automatic alarm system to go off in the particular room where the fire started. The evidences were that it had been tampered with very recently. But otherwise there was no trouble with the apparatus.

Mr. ANTHONY. What kind of a fire-alarm system did you have here?

Gen. CARSON. I think it is called the aero system.

Mr. ANTHONY. What is that?

Gen. CARSON. That is a system that automatically starts the alarm with the rise in temperature.

Mr. ANTHONY. The melting of a fuse?

Gen. CARSON. Or the expansion of a metal that is very susceptible to heat—metal with a low fusing point.

Mr. ANTHONY. So if it was tampered with, the system failed to work?

Gen. CARSON. Where it was tested in other places it has worked perfectly. But the evidences found after this fire led the investigating officer, whom we sent out to report, that he thought the tubing had been torn or disturbed, so that in that particular room it would not function.

Mr. ANTHONY. Do you have a fire-fighting organization of your own out there?

Gen. CARSON. It is a part of the hospital force. We supervise its technical operation. There is a fire-fighting force there.

Mr. ANTHONY. Composed of civilians employed as firemen?

Gen. CARSON. Yes, sir.

MAINTENANCE AND REPAIR OF PLUMBING, ETC.

Mr. ANTHONY. You are asking for \$4,709,557 for water and sewage systems, including fuel and sewage and all plumbing in buildings, there not specifically otherwise provided including all piping for sprinkler systems. Does that include any new construction?

Gen. CARSON. That is for maintenance and repair only. No new construction would be assigned there.

Mr. ANTHONY. The way the language reads it could be used for new construction, if such language was put in the bill.

Lieut. BRILL. I think the words "maintenance and operation" have probably been omitted from that item, because that is used exclusively for maintenance and operation.

FOR PURCHASE OF WATER AT POSTS AND STATIONS.

(See p. 749.)

Mr. ANTHONY. Under the language of this bill, "For procuring water at posts and stations" you could construct an extensive water plant costing a million or more dollars from these appropriations. If you saw fit to do it, could you not, General?

Gen. CARSON. I would not do it, sir. I would not so interpret the intent of the law. The intention is that this appropriation shall be used for operation, maintenance, and repair and I think it would be improper to use it for any other purpose.

Mr. ANTHONY. I think it would too, but the language is rather broad.

Gen. CARSON. Unless it is specifically authorized—as in the case of Ford Island—for replacing the existing system which has gone to pieces. That happens very infrequently.

CAMPS WITH OWN WATER SUPPLY SYSTEMS.

Mr. ANTHONY. At how many posts in the Army does the Government own its own water plants or water supply systems.

Gen. CARSON. You mean the distributing system?

Mr. ANTHONY. I mean the entire plant.

Gen. CARSON. It controls, I should say, in all, roughly, at half a dozen of the new camps an independent supply has been developed.

Mr. ANTHONY. At half a dozen camps erected during the war you also built entirely new water supply systems?

Gen. CARSON. Yes.

Mr. ANTHONY. What camps have such supply systems?

Gen. CARSON. I can put that in the record.

WATER SUPPLY OF CAMPS BUILT DURING WAR WHICH HAVE GOVERNMENT-OWNED WATER-SUPPLY SYSTEMS.

National Army camps.—Devens, Ayer, Mass.; Dix, Wrightstown, N. J.; Des Moines, Iowa; Funston, Fort Riley, Kans.; Grant, Rockford, Ill.; Lewis, Alcan Lake, Wash.; Meade, Admiral, Md.; Pike, Little Rock, Ark.; Sherman, Coshocton, Ohio; Travis, San Antonio, Tex.; Upton, Yaphank, Long Island, N. Y.

National Guard camps.—Beauregard, Alexandria, La.; Doniphan, Fort Sill, Okla.; Kearny, San Diego, Calif.; Shelby, Hattiesburg, Miss.

Special camps.—Benning, Columbus, Ga.; Humphreys, Accotink, Va.; Johnston, Jacksonville, Fla.; Knox, Stithon, Ky.; Normoyle, San Antonio, Tex.; Perry, Port Clinton, Ohio; Stanley, Leon Springs, Tex.; Stotsenburg, Philippines; Summerall, Tobyhanna, Pa.

Number of posts at which the water supply is Government owned and developed

Number of posts at which the water supply is purchased.....

Number of posts at which the water supply is Government owned but an emergency supply is purchased, or where the supply is inadequate and a small amount is purchased.....

HIRE OF CIVILIAN EMPLOYEES.

Mr. ANTHONY. The language of the bill says "hire of civilian employees," but there is no item of that kind in your analysis. How much of this appropriation is used for the pay of civilian employees?

Gen. CARSON. You are speaking of the \$4,000,000 item?

Mr. ANTHONY. No; the whole item.

Gen. CARSON. I should say roughly 70 per cent.

Mr. ANTHONY. Seventy per cent of the entire item is for pay of civilians?

Gen. CARSON. Yes, sir.

Mr. ANTHONY. Will you put in the record a statement showing the number of civilians required and the total amount that will be used for that purpose?

Gen. CARSON. Yes, sir.

NOTE.—Of the total estimate under item 1006.108 (water and sewers) approximately 76 per cent or in figures \$3,617,303.60 is for the pay of civilian employees necessary for the maintenance and repair of all water and sewage systems and for the operation of all pumping, filtration, and sewage disposal plants. It is impossible to list the exact number of employees to be paid from this amount because the only records of individual employees maintained in this office are for civil-service employees who work in connection with the operation of the plants. Civilian employees required for maintenance and repair purposes are employed by the local authorities, the only report rendered this office being the cost of the services. No report is made as to the number of people employed. Estimates for this purpose are received in this office annually from each post and station. They are checked in this office against expenditure during past years to determine their reasonableness and are then incorporated in the estimates. The following classification is given as to the class of employees paid from this appropriation:

Technical employees.....	\$217,038. 22
Mechanical employees.....	2,821,496. 80
Laborers.....	578,768. 58

Technical employees include men of experience and training, such as general superintendents of pumping stations, inspectors and water supply experts who check economy of operation of existing plants and any proposed new plans. Mechanical employees include ordinary engineers, plumbers, their assistants, etc. Labor includes ordinary common labor.

MAINTENANCE OF WATER AND SEWER COSTS AT INACTIVE CAMPS.

Mr. ANTHONY. Does any of this appropriation go toward the maintenance of water and sewer systems at camps and cantonments not now in actual use?

Gen. CARSON. It does in some cases where we have to keep a guard, and then we have caretaking forces at some of these camps, where the main force has been taken away. We must maintain the water and sewer systems for their use, to a necessary degree. Then at some places the local sanitary laws require us to do that.

Mr. ANTHONY. What large camps are there which the Government still owns that are not now in actual use?

Gen. CARSON. There is Camp Upton on Long Island, N. Y., Camp Lee, Va., Camp Gordon, Camp Custer, Camp Dodge, Camp Taylor, Camp Kearny, partially so; those are all of that class of camps I can think of.

Mr. ANTHONY. Some of these camps have been ordered abandoned and sold, two of them by act of Congress, and some, I notice, by order of the War Department.

Gen. CARSON. Camp Taylor was ordered sold by July 1, 1921: Camp Gordon and Camp Eustis, I think, were not to be sold until after July 1. There was no legislation obtained for the others.

Mr. ANTHONY. Camp Upton has been abandoned?

Gen. CARSON. That is one of the camps which the Secretary of War has given up, yes, sir. Camp Lee is another. Camp Eustis is slated for that purpose, but it is still occupied by Coast Artillery troops, I think. Camp Lee I mentioned. Then there are Camp Custer and Camp Dodge.

Mr. ANTHONY. What do you do with the water plants at these posts? Are they shut down?

Gen. CARSON. Not until the camp is entirely abandoned. We can not do that until the camp is entirely abandoned.

Mr. ANTHONY. You maintain the water supply as long as there is any one at the camps?

Gen. CARSON. We maintain the water supply as long as there is anybody in the camps, for the use of the caretaking force and whatever force is there until we can dispose of the camp, and for fire protection.

Mr. ANTHONY. Does not that involve considerable expense?

Gen. CARSON. Yes, sir; it does.

NUMBER OF CIVILIANS EMPLOYED AT INACTIVE CAMPS.

Mr. ANTHONY. Will you put in the record a statement showing the number of civilian employees paid out of quartermaster appropriations, that is, employees at these camps abandoned or ordered to be abandoned?

Gen. CARSON. Yes, sir. Shall I add also the strength of the troops maintained at these camps for caretaking purposes, because if the troops are there we must maintain the water supply system.

Mr. ANTHONY. Yes.

Gen. CARSON. And also the justification for having other employees there?

Mr. ANTHONY. Yes.

Gen. CARSON. I will do that.

Camps that have been ordered abandoned but at which there is a guard stationed.

[Data from Adjutant General's Office, Jan. 12, 1921.]

	Officers.	Enlisted men.		Officers.	Enlisted men.
Custer.....	18	272	Upton.....	9	..
Dodge.....	14	232	Kearny.....	6	..
Funston.....	229	3,690	Hoff General Hospital.....	1	..
Gordon.....	1	72	Jos. E. Johnston.....	1	..
Lee.....	24	1,219	Logan.....	1	..
Taylor.....	6	203	O'Riley General Hospital.....	1	..

Civilian employees.

Camps.	Transportation service.		Construction service.		Supply service.		Total.	
	Em- ployees.	Salary.	Em- ployees.	Salary.	Em- ployees.	Salary.	Em- ployees.	Salary.
Dodge.....	16	\$21,360.00	54	\$82,320.00	84	\$112,980.00	154	\$216,660.00
Lee.....	21	21,685.00	46	53,814.40	107	92,869.16	174	168,368.56
Gordon.....	18	23,822.60	49	64,298.62	42	45,960.00	109	134,081.22
Custer.....	18	24,500.00	126	171,660.00	90	114,477.04	234	310,637.04
Upton.....	3	2,080.00	15	25,016.00	106	131,355.00	124	160,451.00
Taylor.....	43	40,740.00	33	44,165.60	121	118,254.00	197	203,159.60
Joseph E. Johnston.....			7	9,360.00	18	20,232.50	25	39,592.50
Funston.....	35	46,140.00	177	283,283.80	196	242,680.00	408	572,103.80
Logan.....	1	1,400.00			18	19,260.00	19	20,660.00
O'Reilly General Hospital.....	11	13,620.00	2	3,180.00	10	10,920.00	23	27,720.00
Camp Kearny.....	8	11,586.50	10	12,796.90	45	52,683.00	63	77,066.40
Grand total.....	174	208,934.10	519	749,895.30	837	961,670.70	1,530	1,920,500.12

NOTE.—These employees are necessary to assist the camp quartermaster in closing out the camp. The camp quartermaster is in every case the last officer in the camp, he being charged with the final disposition of property. This includes not only quartermaster property, but property belonging to other supply services which is turned over to the quartermaster as the representatives of these services leave the camp. They are employed in checking, checking goods, packing, shipping, keeping necessary records of shipments, making necessary transportation orders, in keeping the buildings in which property is stored weatherproof, in operating the water, sewage, and lighting systems, all of which must be constantly maintained, and in fire protection. It must be borne in mind that property is stored in these camps in many cases valued at several millions of dollars.

DISPOSAL OF CAMPS.

Mr. ANTHONY. When a camp is ordered abandoned, such as Camp Lee and Camp Upton, have any steps been taken to dispose of those camps?

Gen. CARSON. Only what you might call the aboveground improvements. We can not dispose of the real estate without authority of Congress.

Mr. ANTHONY. Have steps been taken at any of the camps you named to dispose of the buildings?

Gen. CARSON. Yes, sir. At Camp Upton the buildings are in process of being disposed of now. The same is true of Camp Custer and Camp Dodge; also Camp Johnston, in Florida.

Mr. CRAMTON. You say steps are being taken in those cases. Do I understand you to say that further authorization by Congress is necessary before sales can be made?

Gen. CARSON. That is not so except in the case of real estate.

Mr. ANTHONY. Are you not authorized now to dispose of real estate?

Gen. CARSON. Not in those camps. The only three camps at which we are authorized to sell the real estate are Camp Taylor, Camp Gordon, and Camp Eustis.

Mr. ANTHONY. Then it would require additional legislation before you could sell the real estate at these camps you mentioned?

Gen. CARSON. Yes, sir. Buildings of a temporary character are not regarded as part of the realty.

Mr. CRAMTON. So if bids have been received at Camp Custer those bids refer only to buildings, and not to the real estate?

Gen. CARSON. Only to the buildings.

Mr. ANTHONY. When the War Department once acquires land for military purposes, that land can only be sold on specific authority of Congress?

Gen. CARSON. That is the law.

Mr. ANTHONY. So if you wanted to dispose of Camp Lee or Camp Upton you would have to have authority to do that?

Gen. CARSON. We will have to have a specific act of Congress; yes, sir. That was so in the cases of Camp Taylor, Camp Gordon, and Camp Eustis.

Mr. ANTHONY. If the Legislature of the State of Michigan should want to take steps toward acquiring Camp Custer, which has been ordered disposed of, the War Department is not now in a position to discuss the sale of that camp, that is, the real estate?

Gen. CARSON. Not of the land; no, sir. The War Department, no matter how sympathetic it might be toward that purpose, could not dispose of the real estate without a special act of Congress.

Gen. ROGERS. I think it is permanent law, Mr. Cramton, that no real estate can be disposed of without authority of Congress.

Mr. CRAMTON. When you are selling the buildings at these camps is it not rather difficult to get the best bids if you are not able to consider bids that take the buildings along with the real estate?

Gen. CARSON. No, sir; because the people who buy the land might purchase it for a purpose for which the buildings on it would not be required and they would move the buildings, anyway.

Mr. CRAMTON. But suppose a person did have a desire to buy the land with buildings, then the buildings would be worth more to such a person than they would to a bidder who could not use the land.

Gen. CARSON. That is possibly so.

Mr. CRAMTON. So when you are selling this property you have no authority to consider bids for the land as well, and possibly you are not getting the best advantage out of it.

Gen. CARSON. That is possible.

Mr. CRAMTON. I understand you are the creature of circumstance in that case, but it would be better if you had authority to sell the land and the buildings jointly, where proper bids are received.

Gen. CARSON. It might be; yes, sir.

Mr. ANTHONY. Are these buildings being sold by the Sales Division of the War Department or by the Construction Service?

Gen. CARSON. By the Real Estate Division of the Construction Service.

Mr. ANTHONY. And that is practically under your charge?

Gen. CARSON. Yes, sir.

Mr. CRAMTON. Was Camp Sheridan leased or purchased?

Gen. CARSON. Camp Sheridan was purchased, I think.

Mr. CRAMTON. Authority was given by law for its sale?

Gen. CARSON. I am mistaken. The land on which Camp Sheridan was located was all leased.

Mr. ANTHONY. There was no specific authority of law to sell. There was authority given for the Government to purchase the land on which these camps were located when it would be more economical for the Government to complete its purchase under the contract than to allow it to lapse.

Mr. CRAMTON. In the case of Camp Sheridan we simply let it go back?

Gen. CARSON. Yes, sir.

Mr. CRAMTON. I take it that that explains the reason why this appropriation is about four times as large as it was in prewar days, because it involves the continuance of these camps, such as Camp Custer and others.

Gen. CARSON. In prewar days?

Mr. CRAMTON. The reason the appropriation you are asking for is four times as large as it was in 1916 or 1917 is in large part because we are still continuing all these camps?

Gen. CARSON. Yes, sir.

Mr. ANTHONY. I notice the figures show that your expenditures in 1914 were \$1,123,000, and the actual expenditures in 1916 were \$1,700,000, and in 1917, \$1,900,000, whereas your estimate for next year is something about \$6,000,000.

Gen. CARSON. We have 16 or 18 of these camps that we did not possess before the war, and the larger part of the Army is quartered in these camps in the States.

Mr. ANTHONY. But in all of these camps which are not being used you still have to devote large sums of money for the maintenance of the utilities?

Gen. CARSON. Until we can dispose of them.

Mr. CRAMTON. And that accounts for a large part of your increased expense?

Gen. CARSON. Yes, sir.

Mr. CRAMTON. You think it would be desirable, if the War Department had the authority, to dispose of these abandoned camps in their entirety?

Gen. CARSON. Undoubtedly so; as long as the camps are going to be abandoned, if we could offer them for sale with the land, undoubtedly it would be better.

FOR PURCHASE OF WATER AT POSTS AND STATIONS.

(See p. 744.)

Mr. ANTHONY. In regard to the item for the purchase of water at posts and stations, you ask for \$1,775,000. How much will you expend during the current year for the purchase of water?

Gen. LORD. There has been allotted up to date, \$961,372.62 for that purpose. That is up to January 7, 1921.

Mr. ANTHONY. You will exceed the amount that was appropriated for that item?

Gen. LORD. The estimate for this item for the fiscal year 1921 was \$1,365,000, but only \$1,000,000 was allowed. There has been expended nearly a million dollars for that purpose already.

Mr. ANTHONY. Is that not because of the increased prices demanded for water?

Gen. CARSON. I think not. There has been very little increase in that. It is the consumption. We purchase the water at some of these places.

Mr. ANTHONY. You purchase fuel under this item also?

Gen. CARSON. Yes, we purchase fuel under this item.

Lieut. BRILL. There will be a separate item set up for that. They have set up a separate item for fuel now, so if this were corrected to date it would show the fuel as a separate item.

Mr. ANTHONY. Fuel is purchased under the general contracts which you make for the supply of fuel for the use of the Army?

Lieut. BRILL. Yes, sir; but it is allotted out of this appropriation and used for the operation of the pumping and sewage disposal plants.

Gen. CARSON. So much of the appropriation for this purpose is allotted for the fuel expenditures. I omitted to state awhile ago, in answer to your question, that the Mexican border posts have also increased our costs since 1914, Mr. Cramton. A great many of those posts are maintained for certain purposes and are still being operated.

POSTS ON MEXICAN BORDER.

Mr. ANTHONY. Have you a list of the posts on the Mexican border where troops are stationed?

Gen. CARSON. I think we have, and we can put that in the record.

Mr. ANTHONY. I wish you would put in the record a list of those posts.

Gen. CARSON. Our statement of utilities expenditures would show all the posts.

Garrisoned posts on Mexican border.

Post.	Officers.	Enlisted men
Bliss.....	199	4,282
Brown.....	38	1,282
McAllen.....	11	322
Mercedes.....	11	322
Michle.....	29	1,282
Eagle Pass.....	29	1,282
Furlong.....	36	1,282
Shannon.....	9	1,282
Huachuca.....	34	1,282
Harry J. Jones.....	71	1,282
Nogales.....	51	1,282
McIntosh.....	39	1,282
Marfa.....	65	1,282
Ringgold.....	15	1,282
Apache.....	5	1,282
Total.....	612	1

NOTE.—In connection with the above list it is to be borne in mind that the garrisons attached to these posts spend a considerable portion of their time at small stations, a great number of which are distributed along the border. The posts on this list are the headquarters of the various organizations. However, when on patrol duty these organizations are stationed perhaps several months at a stretch at one or more of the miscellaneous stations. There are approximately 50 or more of these stations at which some construction has been done for the use of the troops while stationed there.

Mr. ANTHONY. So that if normal conditions are restored along the Mexican border and troops are brought back to their original stations, some of that expense will no doubt cease?

Gen. CARSON. Some of it could be eliminated.

BARRACKS AND QUARTERS.

Mr. ANTHONY. Under the heading of barracks and quarters you are asking for an appropriation of \$20,700,000. Does the size of the army affect this amount?

Gen. CARSON. That does not make any difference. The size of the army makes no difference in this item.

Barracks and quarters, fiscal year 1922.

Item No.	Name of item.	Apportioned, fiscal year 1921, for 175,000 men.		Estimated, fiscal year 1922, for 150,000 men.		Estimated, fiscal year 1922, for 175,000 men.		Estimated, fiscal year 1922, for 280,000 men.	
		Amount.	Capita.	Amount.	Capita.	Amount.	Capita.	Amount.	Capita.
0501. 110	Barracks, quarters, stables, storehouses, magazines, administration and office buildings, sheds, shops, reclamation plants, other buildings necessary for the shelter of troops, public animals, and stores, other public buildings at military posts, flouring and framing for tents, screen doors, window screens, and shades, and storm doors and sash for barracks, offices, and quarters (except those pertaining to Coast Artillery).....	\$3, 000, 000. 00	\$17. 14	\$999, 784. 00	\$6. 065	\$999, 784. 00	\$5. 71	\$999, 784. 00	\$3. 576
0601. 110	Barracks, quarters, stables, storehouses, magazines, administration and office buildings, sheds, shops, reclamation plants, other buildings necessary for the shelter of troops, public animals, and stores, other public buildings at military posts, flouring and framing for tents, screen doors, window screens, and shades, and storm doors and sash for barracks, offices, and quarters (except those pertaining to Coast Artillery).....	4, 225, 000. 00	24. 14	10, 540, 337. 70	70. 268	10, 540, 337. 70	60. 23	10, 540, 337. 70	37. 644
1101. 110	Furniture for public rooms of officers' messes and officers' quarters at military posts, wall lockers in permanent barracks, and refrigerators in barracks and quarters, purchase, maintenance, and repair of.....	25, 000. 00	. 14	6, 734, 675. 00	44. 904	7, 170, 675. 00	40. 975	7, 170, 675. 00	25. 009
0401. 110	Rental of quarters, barracks, and buildings for occupation by troops, for use as stables, storehouses, offices, and for all other military purposes.....	500, 000. 00	2. 86	1, 138, 703. 30	7. 591	1, 138, 703. 30	6. 50	1, 138, 703. 30	4. 06
0402. 110	Hire of recruiting stations and lodging for recruits.....	500, 000. 00	2. 86	330, 000. 00	2. 20	680, 000. 00	3. 714	650, 000. 00	2. 32
0403. 110	Rental of grounds for encampments, camp sites, and other military purposes.....	250, 000. 00	1. 43	500. 00	. 003	500. 00	. 00285	500. 00	. 0017
	Added by finance for Reserve Officers' Training Corps, letter Oct. 11, 1920.....			200, 000. 00	1. 333	200, 000. 00	1. 142	200, 000. 00	. 714
	Total.....	8, 500, 000. 00	48. 57	19, 945, 000. 00	132. 966	20, 700, 000. 00	118. 285	20, 700, 000. 00	73. 934

CURRENT ALLOTMENT AND EXPENDITURE.

Mr. ANTHONY. There was appropriated for the current year, the fiscal year, 1921; \$8,500,000. Can you tell us how much was allotted for that item and how much has been expended?

Lieut. BRILL. There has been allotted, what is equivalent to an expenditure, \$4,205,394.18. There is a free balance remaining of \$3,294,005.82.

Mr. ANTHONY. Will that free balance remaining be used during the remainder of the fiscal year?

Gen. CARSON. I think it will; and more too, if we have it. I think we will have some difficulty to keep within that amount, or at least to keep things going with that amount of money.

Mr. ANTHONY. You are asking for an increase of over 100 per cent under this head.

Gen. CARSON. Yes, sir.

Mr. CRAMTON. About 150 per cent.

Mr. ANTHONY. What is the cause of that?

FURNITURE FOR OFFICERS' MESSES AND QUARTERS, ETC.

Gen. CARSON. One item that appears in this year's estimate was not in last year. That is for furniture for public rooms of officers' messes and officers' quarters. That is item No. 1101.

Mr. ANTHONY. You are asking for \$7,170,675 for that item, as against an appropriation of \$25,000 during the current year.

Gen. CARSON. Yes, sir.

Mr. ANTHONY. I wish you would explain that. I suppose that comes from the regulation furniture that is furnished to officers.

Gen. CARSON. For the purchase of furniture for officers' quarters: wall lockers in permanent barracks, and refrigerators in barracks and quarters for officers, noncommissioned officers, and mess and recreation rooms. It also includes wall lockers for barracks for enlisted men. The exact amounts that this estimate is based upon are 7 sets of furniture for field officers' quarters, at \$863 per set; 3,000 sets of furniture for married officers' quarters, at \$683 per set; 3,300 sets of furniture for bachelor officers' quarters, at \$278.50 per set; 7 sets of furniture for officers' messes, at \$327.50 per set; 900 sets of furniture for warrant officers' quarters; 500 sets of furniture for married officers' quarters and 400 sets of furniture for bachelor officers' quarters; 7,500 sets of furniture for noncommissioned officers' quarters, entitled to separate quarters, at \$160 per set; 3,500 refrigerators for officers' quarters, at \$40 each; 4,000 refrigerators for noncommissioned officers' quarters, at \$30 each; 100,000 wall lockers for enlisted men, at \$15 each.

Mr. CRAMTON. What time were the figures secured on which these estimates were based?

Gen. CARSON. During the past fall.

Mr. CRAMTON. That would be in August or September.

Lieut. BRILL. In the early part of September, before the middle of September.

Gen. CARSON. Those were based upon figures we secured.

Mr. CRAMTON. There will probably be a little change in these prices by the time you come to buy the articles provided for in this bill.

Gen. CARSON. Probably.

Lieut. BRILL. These figures were taken from the most recent contract prices at that time.

Mr. ANTHONY. All of the old Army posts are supplied with this regulation furniture that is furnished to the officer?

Gen. CARSON. To some extent; but a lot of furniture has deteriorated and some of it was lost during the hysterical days in the early part of the war.

Mr. ANTHONY. The bulk of this furniture is to go into officers' quarters at these new divisional headquarters which are being established?

Gen. CARSON. Mostly, yes, sir.

Mr. ANTHONY. Do you have to buy furniture regardless of the fact that the Committee on Appropriations has declined to make any appropriation for constructing new officers' quarters at these camps?

Gen. CARSON. This furniture can be used in the temporary frame buildings that the officers are using there.

Mr. ANTHONY. How do the officers get along now, with their own furniture?

Gen. CARSON. To a large extent.

Gen. ROGERS. I would like to have the committee know that we have endeavored in every way to make use of all the furniture bought during the war. In fact, we have salvaged all the furniture we can get our hands on, taking it from the furniture that the Ordnance Department had during the war in some of their plants, and from all of the activities that have been done away with we have taken furniture and turned it over to officers as far as possible to save buying new furniture.

Mr. CRAMTON. Have you any information as to the furniture which the Shipping Board used in their operations? Has that been disposed of? If not, is not that suitable for these purposes?

Gen. ROGERS. I do not know about that. I know we have gotten all the furniture that we could get in any way to help these officers out. We have filled up the temporary quarters and we have tried to take care of the junior officers in all these cantonments and save the expense there, and we have used all the furniture we could get our hands on to help them out, even using office chairs and things of that kind.

Mr. ANTHONY. Have you a place to put this furniture, regardless of the new officers' quarters?

Gen. CARSON. Yes, sir; we put it into service immediately.

Mr. ANTHONY. Could you not get along without it, if necessary?

Gen. CARSON. I suppose they could exist; yes, sir.

CONSTRUCTION OF BARRACKS, QUARTERS, STABLES, STOREHOUSES, MAGAZINES, ADMINISTRATION AND OFFICE BUILDINGS, ETC.

Mr. ANTHONY. You have an item for barracks, quarters, stables, storehouses, magazines, administration and office buildings, sheds, shops, reclamation plants, and other buildings necessary for the shelter of troops, public animals, and stores, other public buildings at military posts, flooring and framing for tents, screen doors, window screens and shades, storm doors and sash for barracks, offices,

and quarters (except those pertaining to Coast Artillery), for which you are asking \$999,784. That is for maintenance and repair. I think.

Gen. CARSON. No, sir.

Mr. ANTHONY. I wish you would tell us now what new construction you contemplate under this program.

Gen. CARSON. There is an addition to the power plant.

Mr. ANTHONY. I wish you would put the details of that in the record. You might tell us what the main items are.

New construction projects to be carried out under the appropriation "Barracks and quarters," fiscal year 1922.

Post.	Project.	Barracks and quarters.
Fort Bliss.....	Coal pocket with trestle.....	\$17,500.00
Fort Leavenworth, Kans.....	Swimming pool.....	22,000.00
Fort McHenry, Md.....	Restoration of buildings at immigrant station.....	15,000.00
New Cumberland, Pa.....	Garage.....	21,000.00
Camp Normoyle, Tex.....	Shelving and rack in barracks.....	8,000.00
Fort Bliss, Tex.....	Purchase of land.....	356,700.00
Souther Field, Ga.....	do.....	550.00
Carlstrom Field, Fla.....	do.....	5,000.00
Scott Field, Ill.....	do.....	775.00
Los Angeles, Calif.....	do.....	6,000.00
Mount Clemens, Mich.....	do.....	15,000.00
Rantoul, Ill.....	do.....	1,200.00
Richmond, Va.....	Purchase marine engine and boiler plant..	250,000.00
Ream Field, Calif.....	Purchase of land.....	35,000.00
Personnel, district office.....		186,000.00
Total.....		1,011,650.00

CONSTRUCTION AT FORT BLISS, TEX.

Gen. CARSON. The main items are: Fort Bliss, Tex., coal pockets. That is a spur track and place for the storage of coal at Fort Bliss.

Mr. ANTHONY. How much do you want for that?

SWIMMING POOL AT FORT LEAVENWORTH, KANS.

Gen. CARSON. The amount is \$17,500. That is mostly for trestle and pockets. Then there is an item for a swimming pool at Fort Leavenworth, Kans., for which the estimate is \$22,000. That is at the military prison.

Mr. ANTHONY. These are the explicit items named in the bill?

Gen. CARSON. That makes up the estimate of \$999,784.

Mr. ANTHONY. All of the \$999,784 is for new construction?

RESTORATION OF IMMIGRATION STATION, FORT M'HENRY, MD

Gen. CARSON. It is; yes, sir. At Fort McHenry, Md., there is an item for the restoration of the immigration station. That is necessary because those buildings were taken over from the Immigration Service during the war with the agreement that they would be restored, or that any damage would be repaired.

Mr. ANTHONY. How much is estimated for that?

GARAGE AT NEW CUMBERLAND, PA.

Gen. CARSON. \$15,000. There is an item of \$30,210 in connection with the operation of the reserve depot at New Cumberland, Pa. That is for a garage. We have no garage there.

Mr. ANTHONY. That is a reserve storage depot?

Gen. CARSON. Yes, sir.

Mr. ANTHONY. Where do you store your machines there now?

Lieut. BRILL. They are stored in one bay of the large warehouse; but the principal reason why we want that garage is because of the fact that the warehouse itself is overcrowded, and also because of the fire hazard.

Mr. ANTHONY. Is that going to be a permanent storehouse?

Lieut. BRILL. Yes, sir; it is permanent. That is warehouse No. 1 at that depot at New Cumberland. It is also because of the fact that the part of the building used for that purpose increases the fire hazard.

PURCHASE OF LAND FOR AVIATION PURPOSES.

Gen. CARSON. Then there is also an item for \$9,000 for Camp Normoyle. The next items are for the purchase of land for aviation purposes, Fort Bliss, Tex., for which the estimate is \$356,700.

Mr. ANTHONY. That is for aviation?

Gen. CARSON. Yes, sir; for aviation purposes. Then there is an item of \$750 for the purchase of 4.6 acres of land for a septic tank at Souther Field, Americus, Ga.; \$5,000 for the purchase of a railroad right of way to Carlstrom and Dorr Fields, Arcadia, Fla.; \$776 for the purchase of 3.88 acres of land along the west side of Scott Field, Belleville, Ill.; \$1,000 for the purchase of land for a septic tank at Mitchel Field, Long Island; \$6,000 for the purchase of three acres of land for balloon observation station at Los Angeles, Calif.; \$3,000 for 7.264 acres of land for a railroad right of way at Mount Clemens, Mich.; \$1,210 for the purchase of 2.42 acres of land for a railroad right of way at Rantoul, Ill.; \$350,000 for the purchase of a marine engine and boiler plant at Richmond, Va., from the Emergency Fleet Corporation; \$35,000 for the purchase of approximately of 350 acres of land at Ream Field, San Diego, Calif. Those are for land in connection with the Aviation Service. Then the other item making up this total is for personnel at the district offices, amounting to \$150,000.

Mr. ANTHONY. What do you want district offices for?

Gen. CARSON. For the five construction districts we have had to organize and for various other construction activities. We have five district offices.

Mr. ANTHONY. That is for pay of civilian employees?

Gen. CARSON. Oh, yes; entirely.

Mr. ANTHONY. I can understand about these small items for the purchase of land at the different fields in lots of two, three or four acres for the purposes mentioned. What is the argument for the purchase of land adjoining the reservation at Fort Bliss, for which the estimate is \$356,700?

Gen. CARSON. I think Maj. Walsh of the Air Service can give you the details about that.

Mr. ANTHONY. I wish you would have put in the record a statement giving the reasons for those large land purchases.

Gen. CARSON. Yes, sir. This statement will be inserted under Air Service.

MARINE ENGINE AND BOILER PLANT, RICHMOND, VA.

Mr. ANTHONY. What is the other large item at Richmond, Va., for?

Gen. CARSON. That is for a marine engine and boiler plant.

Mr. ANTHONY. Is that for the Air Service, too?

Gen. CARSON. Yes, sir.

Mr. ANTHONY. What do they want with that?

Gen. CARSON. That is in connection with their maintenance and operations.

Mr. ANTHONY. It is a storage plant, is it not?

Gen. CARSON. I think not.

Mr. ANTHONY. I wish you would have a short statement put in the record giving the reasons for that.

Gen. CARSON. Yes, sir.

Mr. ANTHONY. They are proposing to buy that from the Emergency Fleet Corporation?

Gen. CARSON. Yes, sir.

MAINTENANCE AND REPAIR OF BARRACKS, QUARTERS, STABLES, STOREHOUSES, MAGAZINES, ETC.

Mr. ANTHONY. You also have an item for the maintenance and repair of barracks, quarters, stables, storehouses, magazines, and administration and office buildings, sheds, shops, reclamation plant, other buildings necessary for the shelter of troops, public animals and stores, other public buildings at military posts, flooring and framing for tents, screen doors, window screens and shades, and storm doors and sash for barracks, offices and quarters, for which you are asking \$10,540,337.70. What is the purpose of that?

Gen. CARSON. That is entirely for maintenance and repair.

Mr. ANTHONY. Of existing buildings?

Gen. CARSON. Of existing buildings; yes, sir.

Mr. ANTHONY. That contemplates the repair and improvement of these buildings at these Army camps, very largely, does it not?

Gen. CARSON. It all comes out of that; yes, sir.

Mr. ANTHONY. In other words, it does not go into extensive repair at the old posts, but goes almost entirely into these new camps?

Gen. CARSON. It goes mostly into the new camps because of the condition of the buildings.

Mr. ANTHONY. Does it involve any extensive program of painting them or putting on new roofs?

Gen. CARSON. Only where we have to. Orders have been given and are being executed to concentrate troops in each camp as much as possible in order to reduce the cost of maintenance and operation.

Mr. ANTHONY. There are some of these camps that we know we are going to retain. Has any provision been made for protecting the buildings at those camps from weather and from depreciation?

Gen. CARSON. Yes, sir.

Mr. ANTHONY. Are you going to paint them?

Gen. CARSON. We have standing orders that have not been revealed from the Secretary of War, not to paint the exterior of the buildings.

Mr. ANTHONY. Have the materials that go into paint dropped at a reasonable price yet?

Gen. CARSON. I do not think they have.

Mr. ANTHONY. I think some of the items have. For instance, linseed oil is down to a very reasonable figure. I saw a quotation of 70 cents a gallon for linseed oil recently. It was up to \$2.50 a gallon at one time. I wish you could put a statement in the record showing what the cost of painting materials is now and what it was two years ago.

Gen. CARSON. Yes, sir.

Mr. ANTHONY. You say that practically none of this money is to be used for the general painting of the buildings in these camps that we know are to be retained?

Gen. CARSON. We do not expect to do that, and we would not advocate painting any of them except those that would probably be worth it, and would last for 5 or 10 years with such protection.

Mr. ANTHONY. How large a program of alterations do you propose to embark upon under this item?

Gen. CARSON. We have no program of alterations.

OFFICERS' QUARTERS.

Mr. ANTHONY. Are you altering any of the large number of old barrack buildings at these camps into officers' quarters?

Gen. CARSON. Some of them; I should say not a large number. But where troops have been ordered to the camps to be retained, certain alterations have been made to buildings not required for troops, such alterations being made to accommodate the families of the married officers, noncommissioned officers, and enlisted men.

Mr. ANTHONY. Have these alterations mostly been made for officers' quarters at these camps?

Gen. CARSON. Officers and enlisted men, in about the proportion of 60 to 40, I should say. I recall the figures at Camp Dix. We had to accommodate at the moment, the families of 160 officers and 90 enlisted men.

Mr. ANTHONY. Are you housing the officers at these nine principal camps that have been selected for divisional headquarters?

Gen. CARSON. We are trying to, but not in all of them, because we have not been able to provide accommodations.

Mr. ANTHONY. Can you give us an idea of the percentage of officers accommodated with quarters and the number who are commuting at the nine principal camps?

Gen. CARSON. I will have to get that for you.

NOTE.—This statement will be forwarded to committee at an early date.

Cost of paint materials.

	1919	1921
White lead, per 100 pounds.....	\$15.00	\$12.50
Linseed oil, per 100 gallons.....	2.25	.95
Turpentine, per 100 gallons.....	2.50	1.00
Shellac, per 100 gallons.....	5.50	3.75
Spar varnish, per 100 gallons.....	6.50	6.00
Floor varnish, per 100 gallons.....	5.00	4.50
Japan dryer, per 100 pounds.....	1.75	1.50
Brushes, 3-inch, each.....	1.75	1.75
Brushes, 4½-inch, each.....	3.00	3.00

Mr. ANTHONY. How much have you actually expended so far out of the amount of \$4,225,000 that was allotted for this item, No. 601?

Lieut. BRILL. The amount is \$3,002,161.44.

Mr. ANTHONY. Will you use the entire amount of that allotment?

Lieut. BRILL. That has been used already. The allotment is equivalent to an expenditure.

Mr. CRAMTON. This is about one-half of your total request for barracks and quarters, which is something over \$10,000,000. It is more than twice the amount of your expenditure for the current year. It is way beyond what the Army has ever spent for barracks and quarters at any time prior to the war. It represents a per capita of \$60, whereas you never reached the figure of \$60 per capita for barracks and quarters before the war. You just testified that that does not include painting; it does not include any new building projects or any extensive alterations. I take it that practically all troop movements for the occupation of these camps have been made during the current year. You start in the 1st of next July with your camps occupied and largely made ready for occupancy, and at the same time you are going into a period when the cost of materials, and perhaps the cost of labor, will not be more than half what they have been during the current year. It seems to me the committee ought to have more reasons than you have given for the appropriation of \$10,000,000 for this purpose. I have not any understanding of this item at the present time that will warrant me in supporting any such appropriation.

Gen. CARSON. There are nine divisional camps; but there are also seven or eight what we call special camps, such as Camp Benning, Camp Knox.

Mr. CRAMTON. Included in this bill?

Gen. CARSON. There are more than nine camps; there are 16 camps.

Mr. CRAMTON. With costs on the basis of half what they are this year why should you have two and one-half times as much as you are using this year?

Gen. CARSON. I would not ask for it at all, sir, if you would guarantee that costs would be one-half during next year what they are this year; can you guarantee that?

Mr. CRAMTON. It is not my place to guarantee anything.

Gen. CARSON. That is the proposition we have to meet.

Mr. CRAMTON. Even if costs continue 100 per cent of what they are the current year -and you and I both know that they will not, they are on the decline now and very probably the bottom is not yet reached, while we know they will not be any higher -why should you say then that you need two and one-half times as much?

Gen. CARSON. As we had this last year.

Mr. CRAMTON. As you are paying the current year; and I assume in the occupation of these camps, moving your divisions in, that there was an additional expenditure necessary, which has been expended during the current year; and I am not assailing this because it is not my wish to do so, but I am calling it to your attention, so that you may rebut it if you want to, that these camps not being made ready for occupancy, and the troops in them, that means your expenditures should be materially less.

Gen. CARSON. It is true the troops are, or will be, in the camps; but the camps are not ready in the sense that they provide for all the proper accommodations; these buildings were put up in 1917 and 1918 for temporary purposes.

Mr. CRAMTON. Some of them.

Gen. CARSON. Well, all the camps—practically all the buildings in those camps that are of any value at all are such as refrigerating plants, or a laundry building, or some buildings like that, all of those we are maintaining and doing our best to preserve; but the barracks buildings and such, some of them are merely rough boarding covered over with tar paper. The tar paper does not last very long when exposed to the weather, and that is quite an item. Then, also, this item will include the maintenance and repair of the various Air Service stations.

Mr. CRAMTON. I assume that during this year you have encountered heavy expenditure for that very reason.

Gen. CARSON. We have encountered such expense as we have had the money which the Air Service gave us to meet; we should have spent a good deal more if the money could have been made available for that purpose.

Mr. ANTHONY. Have you as Chief of the Construction Division, or through your official force, investigated the necessity for these expenditures; or have these figures simply been thrown upon your office, and you have been ordered to include them in your estimate?

Gen. CARSON. These figures are based upon estimates that we have gotten up and as the result of requests that have come in for maintenance and repair, those that we have investigated and thought worthy of attention, and past experience as to what will be required.

Mr. ANTHONY. Did you make these figures up in your own office?

Gen. CARSON. We made them up in our office.

Mr. ANTHONY. As a result of what the construction service thought would be necessary?

Gen. CARSON. Yes, sir.

Mr. ANTHONY. Or were you able to prepare so many buildings and so many camps for occupancy and make such improvements as are outlined in those camps?

Gen. CARSON. These figures were made up in the office of the construction service last summer.

Mr. CRAMTON. To what extent are these buildings, enumerated in this item, 601, buildings put up as temporary structures during the war, to be repaired?

Gen. CARSON. Now, that is very difficult to answer.

Mr. CRAMTON. The Army is using some, of course, is it not, that were built before the war?

Gen. CARSON. This item includes all demands for maintenance and repair of all prewar posts.

Mr. CRAMTON. And that is what I want to get an idea of.

Gen. CARSON. And in addition all the new camps that have been acquired since the war will cost more than the old posts because of the temporary character of buildings in these camps.

Mr. CRAMTON. I understand that. Now, if you could give me a little idea.

The total estimate for "Maintenance and repair of buildings and structures" under the appropriation "Barracks and quarters" (item 0601.110) is divided between the prewar Regular Army posts and the new camps in the proportion of 35 per cent at new posts and 65 per cent at old camps and stations.

Gen. CARSON. They are going rapidly to pieces and, as we have no other means for affording protection to the troops at these camps, we must do the best we can in keeping up these temporary places.

NUMBER OF TROOPS THAT MAY BE CARED FOR AT PERMANENT POSTS.

Mr. ANTHONY. General, right there, how many enlisted men can you take care of in the old posts, or, rather, the existing permanent Army posts.

Gen. ROGERS. I think about 16,000.

Mr. ANTHONY. I think you are mistaken.

Gen. ROGERS. About 16,000—we had it figured up and I think it was 16,000 in addition to those that are being taken care of now.

Mr. ANTHONY. Sixteen thousand. That is out of the question. The statement was made to me the other day that there were accommodations at the permanent posts for about 70,000 enlisted men.

Gen. ROGERS. The figures that were obtained under my instructions were that we could take care of 16,500 men in addition to those that are now being taken care of.

Mr. ANTHONY. Oh, at the present time. So there are vacant quarters at the present time at the Regular Army posts for 16,000 more men than you have now.

Gen. ROGERS. Yes.

Mr. ANTHONY. I see.

Gen. CARSON. All the buildings would be prepared this year so that another year the cantonment buildings would be in shape for the troops and other work. I think I may make the general statement and say that they will not be in proper repair—we are trying to keep within the appropriation this year and we are not enabled to give sufficient money to put these buildings in repair, and they will not be in repair at the end of this year; so I think that is one reason why this large amount of money will be necessary to put these buildings in proper repair.

Mr. CRAMTON. How will their condition compare the 1st of July 1921, with their condition on the 1st of July, 1920, having expended during the current year some \$4,000,000?

Gen. CARSON. I do not think they will be in as good repair in a good many ways, Mr. Cramton. I do not know whether you would know it or not, but the construction that was done during the war was very cheap construction.

Mr. CRAMTON. I am aware of that.

Gen. ROGERS. And I know of one particular case down in Camp Travis, at San Antonio—I do not know whether you visited that camp or not—but Gen. Harbord complained to me very bitterly when he was up here that the roofs of all the buildings there were in very bad shape; and I think the majority of the camp buildings were roofed with either one-ply or two-ply roofing paper when they should have used a better quality; but for that reason and other it is necessary to make repairs, and, of course, the older the buildings the more expensive they are to keep in repair.

Mr. CRAMTON. But during the current year you are spending something over \$4,000,000 on those buildings, and I assume that quite

material repairs have been made; at the same time there is a deterioration going on also and it would seem——

Gen. CARSON. Very considerable deterioration.

Mr. CRAMTON. And it would seem reasonable to suppose, speaking as a person that does not know a thing about it——

Gen. CARSON. Yes, sir.

Mr. CRAMTON. That at the end of this year, having spent your \$4,000,000, your buildings would be in as good condition then as at the beginning of the year?

Gen. CARSON. I do not think it will, Mr. Cramton; only such buildings as we were able to work on will be in habitable condition.

Mr. CRAMTON. That will take care of this, but while those are improving others are deteriorating, and, generally speaking, you will be just as bad off if you start in 1922 with the same amount of money—you would be just as bad off as you were last year.

Lieut. BRILL. Not at all, sir; because during last year we have been able to get considerable material from abandoned camps, which has helped us out in making the repairs.

Mr. CRAMTON. Do you not expect to get any of that material next year when they demolish Camp Custer and some other places?

Lieut. BRILL. That has been more or less discounted; Camp Custer and some places—but there will not be available so much as we had this year.

Mr. CRAMTON. The second explanation is deterioration, and the third explanation is that you are figuring on a 100 per cent price basis as compared with the current year.

Gen. CARSON. Yes; and also if we are not allowed to attempt any permanent construction at these camps for the troops, we will have to keep the old buildings; and the older they get the more repairs they will require.

Mr. ANTHONY. Gen. Carson, is it not true that a large proportion of these expenditures has been made necessary by the plan of the War Department to establish these nine areas, or nine divisional camps, instead of utilizing a good many of the old permanent posts, such as was formerly the case?

Gen. CARSON. I would not like to say.

Mr. ANTHONY. We would like to have the facts about it. Is not that true?

Gen. CARSON. It has, of course, some bearing upon it.

Mr. ANTHONY. I want to ask Gen. Rogers, then, if he can tell us what is the barracks capacity of the existing permanent military posts; those that are now in use and those that have been allowed to go into disuse.

Lieut. BRILL. Permanent construction for 4,991 officers——

Mr. ANTHONY. Permanent capacity.

Lieut. BRILL. Permanent capacity for 76,656 enlisted men.

Mr. ANTHONY. If the Army is reduced, then, to 150,000 men and you have permanent existing quarters for 76,000 men, would there be the necessity of making these large expenditures to put these big Army camps in shape?

Gen. CARSON. Not so much necessity, but at the same time if a concentrated effort is made to use the full capacity of the old posts we will have to go in there and repair a lot of them.

Mr. ANTHONY. Now, take the old posts; what comparatively large posts are there where there are modern brick barracks buildings; how many of them are there and what is their capacity that you are not now utilizing?

Gen. CARSON. I can not give that to you offhand; that would have to be picked from our statistical records.

Gen. ROGERS. I think possibly Col. Hickman could give us some idea of the policy of the General Staff regarding occupying these posts better than we can.

Mr. ANTHONY. I understand the construction department is simply asked to provide quarters for a certain number of men. What we want to find out is whether present quarters are now being utilized to the best advantage. Can you tell us, Col. Hickman?

Col. HICKMAN. I can get the figures for you, but I can not give them to you now.

MODERN POSTS ABANDONED.

Mr. ANTHONY. I would like to have inserted in the record a statement of the posts where modern buildings exist that are not now being utilized for the accommodation of troops. For instance, I have in mind Fort Meade, S. Dak. Members of Congress spoke to me about that post; I believe they said it was not being utilized now.

Gen. ROGERS. I should just guess that that has been abandoned. I am not sure; I will ascertain.

Gen. LORD. Do you not think you should make your question to read "not occupied at all, or not occupied to their full capacity?"

Mr. ANTHONY. Yes; I will amend it as you suggest.

Gen. ROGERS. I think it would be a regimental post.

Mr. ANTHONY. With modern buildings?

Gen. ROGERS. Yes, sir.

Mr. ANTHONY. That is not being utilized now?

Gen. ROGERS. I could not tell you; I would have to put that in the record.

Mr. ANTHONY. What are the buildings at Fort Logan being utilized for?

Gen. ROGERS. I think that is a recruit depot; it used to be a recruit depot; has been for a number of years.

Mr. ANTHONY. I wish you would make a rather complete statement of those existing accommodations that are not utilized.

Available permanent quarters not occupied at present. Mobile Army, as of Dec. 11, 1921.

Ethan Allen, Vt., Fort.....	601	Bliss, Tex., Fort.....	2
Madison Barracks, N. Y.....	107	Sam Houston, Tex., Fort.....	2
Niagara, N. Y., Fort.....	100	Huachuca, Ariz., Fort.....	
Plattsburg Barracks, N. Y.....	379	Logan, Colo., Fort.....	
Oglethorpe, Ga., Fort.....	90	Douglas, Utah, Fort.....	
Logan H. Roots, Ark., Fort.....	265	Presidio of Monterey, Calif.....	
Columbus Barracks, Ohio.....	160	Presidio of San Francisco, Calif	1
Benj. Harrison, Ind., Fort.....	967	Russell, D. A., Wyo., Fort.....	2
Wayne, Mich., Fort.....	828	Harrison, Wm. H., Mont., Fort..	
Crook, Nebr., Fort.....	440	Lincoln, N. Dak., Fort.....	
Des Moines, Iowa, Fort.....	210	Missoula, Mont., Fort.....	
Meade, S. Dak., Fort.....	783	Vancouver Barracks, Wash.....	
Riley, Kans., Fort.....	1,084		
Robinson, Nebr., Fort.....	642		
Snelling, Minn., Fort.....	425		
			16

1 Caretaker.

FOR RENTAL OF QUARTERS, BARRACKS, AND BUILDINGS FOR USE OF
TROOPS OVERSEAS, ETC.

You have an item here for \$1,138,000 for rental of quarters, barracks, and buildings for occupation by troops overseas, stables, storehouses, offices, and other military purposes. There was appropriated \$500,000 for that purpose during the current year. How much has been allotted and how much expended for that purpose this year?

Lieut. BRILL. There has been allotted \$576,011.41 to December 31.

Mr. ANTHONY. So you have expended more than the allotment at the present time?

Lieut. BRILL. We have.

Mr. ANTHONY. How much more will you expend to the end of the year?

Lieut. BRILL. That covers the most of the year.

Mr. ANTHONY. What is your basis for this, General; where do you have to rent quarters for barracks?

Gen. CARSON. I may answer that, sir, by saying that much of this year's money was due for money used for rental purposes for the troops in Germany.

Mr. ANTHONY. How much of it was used?

Gen. CARSON. They asked for \$180,000 altogether for this current year, which was not contemplated when these estimates were requested last year.

Mr. ANTHONY. I thought barracks and quarters were provided over there——

Gen. CARSON (interposing). It was in the beginning, and the German Government——

Mr. ANTHONY. By the German Government.

Gen. CARSON. And the German Government turned over the money to our representatives at Coblenz and they paid the bills, but the Treasury Department decided it was not the proper way to handle it and required us to put the money in miscellaneous receipts and then take it out of our appropriation; is not that right, Gen. Lord?

Gen. LORD. That is right.

Gen. CARSON. Which we have had to do to the extent of \$180,000.

Mr. ANTHONY. For the fiscal year?

Gen. CARSON. Yes; but we do not expect it next year.

Mr. ANTHONY. Where, in this country, are you forced to rent quarters and barracks for the quartering of troops?

Gen. CARSON. The rental item is largely for the recruiting service—where is that item?

Mr. ANTHONY. That is in the next item.

Gen. CARSON. That is based upon estimates received including about—I will give you these in round numbers—\$48,000 for military attachés at the different places.

Mr. CRAMTON. Just let me interrupt you. Why is it necessary in any case to lease quarters for military attachés?

Gen. CARSON. These are offices, I think, sir.

Mr. CRAMTON. Yes; but their duties are as military officers to our ambassadors and ministers abroad, and why should not they be housed in the same offices that are maintained by our embassies and ministers?

Mr. ANTHONY. Is this to provide offices or living quarters?

Gen. CARSON. These are offices.

Mr. CRAMTON. Offices?

Gen. CARSON. Offices, not quarters.

Mr. CRAMTON. For instance, I was in Prague this last fall and found there that the minister had a large building, much larger than our embassy in Rome during the war, and still there was not room in it for the military attaché and he had some quarters—I never did find where they were—in some distant part of the city so that he could not operate and consult with our minister; and Americans there would find our representatives scattered all over the place. Now, unless there is a greater need for separate quarters for military attachés elsewhere than there was there in Prague, I think we would render a service to put a provision in here expressly prohibiting anything of that kind.

Mr. ANTHONY. I wish you would remember that, Mr. Cramton.

Gen. CARSON. I think that would be the only way to bring it about, because these are officers, of course.

Mr. CRAMTON. Of course, it may be more dignified for the military attaché if he is playing his own game to have some establishment of his own; and then, again, maybe he can not get along with the minister; if so, we better get either a new minister or a new attaché.

Gen. CARSON. Yes, sir. This item was sent to us, made up by the Chief of the Military Intelligence Division, covering their estimates.

Mr. ANTHONY. There is no provision in our appropriation for military intelligence to take care of this item.

Gen. CARSON. I think not, sir.

Mr. ANTHONY. Well, proceed with the further analysis of this rental of quarters and barracks.

RENTAL OF STABLES AND GARAGES FOR TRANSPORTATION SERVICE.

Gen. CARSON. Stables, garages, and store rooms, transportation service; the item furnished us from that service takes up a total of \$121,813.

Mr. ANTHONY. Scattered all over the country?

Gen. CARSON. Yes, sir; Atlanta; Baltimore; Roundsville, Tex.; Charleston; Jackson, Miss., etc.

Mr. ANTHONY. Can not these activities of the transportation service be forced into regular posts that exist in some parts of this territory?

Gen. CARSON. Not very well, sir; the garage at Atlanta, Ga., is necessary because they have not facilities in either McPherson or Jessup, which is nearby.

Mr. ANTHONY. Now, they have a large motor transport repair shop at Atlanta, Ga.—Jessup.

Gen. CARSON. But they have no accommodations for these motors as I understand it.

Mr. ANTHONY. And the motors are these that have to be taken care of there.

Gen. CARSON. They are used, of course, at the depot in Atlanta.

Mr. ANTHONY. Why can not they be housed at the depot motor shops there?

Gen. CARSON. There are no accommodations for them there, as I understand it.

Mr. ANTHONY. They explained to us that there were already about 1,500 machines standing out doors.

Gen. CARSON. These, of course, are for motor trucks that are in daily use in connection with the transportation of supplies handled particularly around Atlanta. At Charleston, S. C., there is a garage and store room.

Mr. ANTHONY. It seems to me that the problem is not so much before us as it is before the War Department to condense its activities that were all scattered out during the war all over the country and save these expenditures.

Gen. CARSON. Signal Corps, \$6,100, Camp Vail, that is for rental of land on which the buildings stand because the purchase has not been completed and until it is we have to rent the land; then the air service leases, rentals of land, and buildings total \$33,154.

Mr. ANTHONY. Are any buildings being rented in this country out of this item for quarters for officers or barracks for enlisted men and buildings for occupation of troops?

Gen. CARSON. Nothing for quarters that would be——

Mr. ANTHONY. Then, that language in the act is a misnomer?

Gen. CARSON. Yes. There is one item here for the rental of ground on which the quarters were built.

Mr. ANTHONY. Where is that?

Gen. CARSON. A small item of \$948, lease of land that is occupied by quarters erected there for the use of officers.

Mr. ANTHONY. Where?

Gen. CARSON. At Newport News, Va.; \$950 for the annual lease of land.

Mr. ANTHONY. Is the whole item made up of a lot of small ones, all of that type; are there any large expenditures there?

Gen. CARSON. There is one item of \$10,800; is that large enough?

Mr. ANTHONY. Yes, that is large enough.

Gen. CARSON. Chicago, Ill., at Thirty-third and Archer Streets, for garage used in connection with the depot; \$6,000, a large item in Chicago, Ill., for quarters for the enlisted men in connection with the Motor Transport Service.

Mr. ANTHONY. You have an organization of enlisted men in the Transportation Service for whom you rent quarters?

Gen. ROGERS. May I make a statement?

Mr. ANTHONY. Certainly.

Gen. ROGERS. I think with the provisions for our having these civilian personnels for our depot garages that item may be done away with; the plan is to have a civilian personnel for the motor transport work of the cities and depots and put the enlisted men at camps.

Mr. ANTHONY. Your argument being that it is cheaper for the Government to do that?

Gen. ROGERS. Cheaper; yes.

Gen. CARSON. Here is an item, "New York City, northwest corner of Avenue C and Nineteenth Street, store room, \$9,600," in connection with the Motor Transport Service; then there is garage and barracks on West Fifty-sixth and Fifty-seventh Streets of \$39,000 or making it practically \$40,000.

Mr. ANTHONY. Per annum?

Gen. CARSON. Yes, sir.

Mr. ANTHONY. For what purpose?

Gen. CARSON. Garage and barracks for the enlisted men operating the motor vehicles.

Philadelphia, Pa. there is an item of "Garage and office, \$20,239."

Mr. ANTHONY. For motor transport station?

Gen. CARSON. Yes, sir; because we have no garage for the depot. I think we have an item for the construction of a garage there for the depot.

Miscellaneous stables, \$10,000; that is scattered around, small items; we have not got that in detail.

RENTAL OF GROUND FOR CANTONMENTS AND OTHER MILITARY PURPOSES.

Mr. ANTHONY. Let us go on to the next item; you are asking for \$500 for the next fiscal year for the rental of grounds for cantonments and other military purposes. There is appropriated \$250,000 for the current year; did you expend all of that \$250,000 for rentals?

Lieut. BRILL. We have expended so far \$62,553.92.

Mr. ANTHONY. Will that carry you through the year?

Lieut. BRILL. There will probably be some little more than that; not very much.

Mr. ANTHONY. The reason for these reduced expenditures under this head is that you are disposing of all of the camp sites that you have been renting heretofore?

Gen. CARSON. Yes, sir.

Lieut. BRILL. And we are completing the purchase of many of them; the litigation having been completed, the land is being paid for.

Mr. ANTHONY. So that \$500, which is just a nominal sum, you are retaining there.

You are asking for \$650,000 for the work of recruiting stations and lodging for recruits; you were allotted \$500,000 for that purpose for the current year. How much has been expended for that purpose?

Lieut. BRILL. \$328,046.86.

Mr. ANTHONY. Will all of the \$500,000 be expended?

Lieut. BRILL. I can not say, sir; that depends very largely upon the recruiting service of The Adjutant General's Office.

Gen. LORD. You have the figures for December 31; the figures for January 9 were \$451,920.84.

Mr. ANTHONY. You say that is dependent largely upon the activities of the recruiting service?

Gen. LORD. Yes, sir; and the estimate is furnished by them to us.

HIRE OF RECRUITING STATIONS—LODGING OF TROOPS.

Mr. CRAMTON. How much of the item is for lodging of recruits? I would like to know the expenditures up to date for that item if you have them, Gen. Lord.

Gen. LORD. It is not divided; I have not the details here. I do not think it is separated.

Mr. CRAMTON. What is your estimate of the lodging for the recruits?

Lieut. BRILL. It is not separated as it is given to us. I will have to find that out and insert it in the record.

Distribution of item of \$650,000 for hire of recruiting stations and lodging corps recruits.

Recruiting officers.....	\$362, 239
Garages.....	34, 367
Lodging for recruits.....	252, 394
Total.....	650, 000

Mr. CRAMTON. It would seem like it would be fully as convenient to everybody concerned if this lodging for recruits was put over in the incidental expenses for the other recruits' expenses, instead of putting it in here under rental of barracks.

Gen. LORD. The character of the item of incidental expenses is a personnel appropriation, very largely.

Mr. CRAMTON. I am speaking of lodgings for recruits, why you do not maintain a barracks for them but pay for their lodging the same as you pay for their meals?

Gen. LORD. It is a question of rentals, and this is the provision of barracks and quarters where we carry our rentals except rentals in the District of Columbia.

Gen. CARSON. The recruiting office may be a building several stories high. In the upper part of it they will have a dormitory for the temporary accommodation of men until they can send them to a depot or camp.

RESERVE OFFICERS' TRAINING CORPS DIVISION.

Mr. ANTHONY. There have been added by the Finance Department for the R. O. T. C. Division \$200,000, what is the object of that?

Gen. LORD. That is the military training camp I called attention to this morning; Maj. Sultan explained it.

Mr. ANTHONY. Is it a R. O. T. C. camp or a civilian training camp?

Gen. LORD. It is a training camp; it is a misnomer.

Mr. ANTHONY. How would you use this \$200,000?

Gen. CARSON. Beg pardon?

Mr. ANTHONY. How would you use this \$200,000 that you ask for?

Gen. CARSON. I am not prepared to defend that, sir.

Lieut. BRILL. That was answered by Maj. Sultan this morning. We were not consulted about that at all.

Mr. ANTHONY. It is just merely an arbitrary figure?

Lieut. BRILL. It is an arbitrary figure.

Mr. ANTHONY. An arbitrary figure for estimated expenditures under that head. It should be corrected and instead of being an R. O. T. C. item it should be——

Gen. LORD. A training camp.

Mr. ANTHONY. Will you see that that correction is made in the item, Gen. Lord?

Gen. LORD. Yes.

Gen. CARSON. Now, coming back to this item, rental of quarters, 0401, \$1,146,203, in that is included an estimate of half a million dollars for billets and quarters for American forces in Germany. Information recently received is to the effect that they will make no further demands upon us for such money.

Mr. ANTHONY. So that half a million dollars, then, can be eliminated?

FUND FOR COMPLETION OF INFANTRY SCHOOL, CAMP BENNING, GA.

Gen. CARSON. Yes, sir; but I would like to hold onto it for another reason. I would like to insert an authorization worded as follows:

Provided further, That not to exceed \$482,000 may be used to complete the purchase of real estate for the Infantry School at Camp Benning, Georgia, to become immediately available.

Mr. ANTHONY. What additional real estate do they want to purchase at Camp Benning?

Gen. CARSON. Nothing additional, but what was originally intended within the boundary of the camp, but to complete the purchase of land within the camp limits and which was suspended for congressional action last session, I believe.

Mr. ANTHONY. No; we authorized them, if I remember correctly, to complete the purchase of all lands within the original boundaries of the reservation there with the exception of a certain specified tract which we eliminated because we were informed that it was not necessary; it is an item for the purchase of that section which they said to us last year they could get along without?

Lieut. BRILL. No, sir; it is to complete the purchase of the part that you authorized to be purchased because the amount appropriated was not sufficient.

Gen. CARSON. I will give you a brief statement.

Mr. ANTHONY. Just wait a minute, General; as I remember we authorized an appropriation for the purchase of real estate there.

Lieut. BRILL. Yes, sir.

Mr. ANTHONY. You completed the purchase of the real estate there under your original contracts made during the war, did you not, and took it out of war funds?

Lieut. BRILL. No, sir; you authorized \$515,252 in the act approved February 28, 1920, for the completion of the purchase of real estate at Camp Benning and that amount has not been sufficient.

Mr. ANTHONY. I would like to have you describe for the purpose of the record just what tract that land is and the necessity for it in general.

Gen. CARSON. You want me to insert it here?

Mr. ANTHONY. Insert the argument.

Gen. CARSON. I will insert the argument right here.

Land acquisition statement, the Infantry School, Camp Benning, Ga.

[December 31, 1920.]

1. Land purchased under original authorization of Oct. 19, 1918, by Real Estate Section, Purchase, Storage and Traffic Division, General Staff, Oct. 19, 1918, to Jan. 1, 1919, 2,217.50 acres (see Exhibit A attached).....	\$29, 815 "
2. Land purchased under authorization of Mar. 28, 1919, by the Construction Division of the Army, Mar. 28 to July 5, 1919, 74,190.26 acres (see Exhibit B attached).....	2, 529, 691 4
3. Expenses, Oct. 19, 1918, to July 5, 1919, surveys, title examination, title policies, appraisers, clerks, etc.....	34, 431 "
Disbursed to July 5, 1919.....	<u>2, 564, 126 "</u>

4. Land purchased under act of Feb. 28, 1920, appropriating.....	\$515, 252. 00	
Land acquired by purchase, 9,368.30 acres (as per Exhibit C).....	\$375, 006. 94	
5. Release of taxes:		
Muscogee County.....	\$3, 000. 00	
Chattahoochee County.....	9, 000. 00	
		12, 000. 00
6. Land acquired by payment into court of amount of verdicts and judgments, 1,412.25 acres (as per Exhibit D).....	46, 283. 75	
7. Expenses Feb. 28 to Dec. 31, 1920, boundary survey, monumenting of boundary, appraisers, title policies, clerks, etc.....	69, 018. 69	
		502, 309. 38
8. Unexpended balance Dec. 31, 1920.....		12, 942. 62
9. Obligated by verdicts and judgments in United States District Court for the Northern District of Georgia, Sept. 27 to Oct. 3, 1920, 776.11 acres (as per Exhibit E).....		31, 407. 10
10. Obligated by verdicts and judgments taken in United States District Court for the Northern District of Georgia, Dec. 16, to Dec. 22, 1920, 6,681.34 acres (as per Exhibit F).....		260, 114. 91
11. Unpurchased land, Dec. 31, 1920, cases to be tried in United States District Court for the Northern District of Georgia, Jan. 31, 1921, 2,600 acres (estimated cost).....	\$126, 656. 54	
12. Possible increase in verdicts and judgments rendered at December term of United States court if new trial is granted in cases appealed (as per Exhibit G). ..	72, 465. 00	
		199, 121. 54
13. Estimated expenses, title insurance, etc.....		4, 000. 00
14. Estimated amount, less unexpended balance necessary to complete project:		
Amount obligated by verdicts and judgments, as per item 9.....		31, 407. 10
Amount obligated by verdicts and judgments, as per item 10.....		260, 114. 91
Estimated amount required to acquire lands now in process of condemnation, as per items 11 and 12.....		199, 121. 54
Estimated expenses, as per item 13.....		4, 000. 00
		494, 643. 55
Funds available for disbursement, as per item 8.....		12, 942. 62
Total additional appropriation necessary to complete.....		481, 700. 93

EXHIBIT A.

Lands purchased under original authorization of Oct. 19, 1918, by the Real Estate Section, Purchase, Storage and Traffic Division, General Staff, Oct. 19, 1918, to Jan. 1, 1919.

Name.	Acreage.	Price.
Bussey, B. W.....	1, 822½	\$25, 818. 75
Rothschild, Bernhard.....	202½	2, 000. 00
Do.....	202½	2, 000. 00
Total.....	2, 227½	29, 818. 75

EXHIBIT B.

Land purchased under authorization Mar. 28, 1919, by the Construction Division of the Army, Mar. 28 to July 5, 1919.

Name.	Acreage.	Price.	Name.	Acreage.	Price.
Andrews, Nellie W.	499	\$21,207.50	Harp, K. G.	101½	\$2,049.00
Austin, N. W., jr.	50	1,000.00	Harp, Mrs. A. D. (C. N. King, administrator)	1,099	21,980.00
Averett, C. L.	414½	5,845.00	Harvey, W. H., and Willis, C. C.	465	11,000.00
Bagley, Mrs. Prince	192½	2,887.50	Heweld, Miss N.	121½	4,200.00
Banks, Martin	46	705.00	Hewell, W. A.	121½	3,334.50
Banks, Violet	54	1,040.00	Hewell, Dr. W. C.	9	4,275.00
Banks, Mrs. Thomas H.	345	5,227.50	Hickey, Annie L. and Johnnie	918½	18,360.00
Becker, Wm. H.	202½	2,531.25	Howard, Dr. C. N.	166	6,640.00
Mandy Benning & Estelle Co.	21.7	600.00	Howard, C. N., sr., and G. H.	403½	8,101.00
Berry, T. E.	218	2,616.00	Howell, Edinborough	34	500.00
Blackmar, A. O., jr.	20	250.00	Howard, G. H. and Mrs.	308½	12,730.00
Blackman, W. W.	243½	3,031.00	Jackson, Mrs. Ella	174	4,500.00
Blanchard, W. R.	113	3,955.00	Jefferson, M. V.	1,428½	48,795.00
Blanchard, W. R., and Humber, L. F.	1,230½	24,615.00	Jenkins, T. E., and Willis, R. L.	354½	17,750.00
Bond, Ella G.	252½	3,150.00	Johnson, Alice C.	202½	6,500.00
Boland, Mattie V.	52½	1,750.00	Jones, Sarah	77	1,155.00
Bradley, W. C. Co. (2,337.37)	2,337½	154,505.00	Jones, Wiley (L. L. 142)	51½	645.00
Brewer, John S.	158½	3,165.00	Jones, Tom	100½	1,210.00
Broxton, J. T.	120	7,250.00	Jones, Mrs. J., and Britt, Mrs. W. B. J.	405	9,112.50
Browning, John D.	101½	1,000.00	Kendrick, W. W. (L. L. 147)	51½	1,340.00
Bullock, O. C.	1,984½	130,000.00	Kilpatrick, Frank	161½	2,983.12
Bussey, Arthur	1,782½	439,000.00	King, G. W.	3,432½	78,272.25
Chappell, L. H.	6	300.00	King, Elias L.	516½	11,250.00
Coleman, Malinda	40	1,900.00	King, G. D.	400	6,000.00
Do.	96½	1,372.00	King, G. W., jr.	370	6,600.00
Christian, J. H., and Mrs.	708	15,070.00	King, G. W.	1,305½	22,600.00
Christian, R. W.	730	14,600.00	King, B. J.	272½	6,000.00
Do.	490½	9,730.00	King, Mrs. Lulu H.	263½	5,275.00
Clark, estate	100	1,100.00	King, C. N.	100	1,500.00
Clark, George	303½	3,797.00	Kissick, S. P.	445½	16,635.00
Clark, John W.	50	2,300.00	Kitchens, Harrison	3½	400.00
Clatt, W. M.	98½	1,525.00	Layfield, B. C.	96½	4,812.50
Cody, W. E.	78	2,000.00	Layfield, J. B.	267½	9,725.00
Do.	65	1,217.50	Layfield, C. C.	768	10,920.00
Coleman, F. W.	4	1,400.00	Layfield, C. C., jr.	52	4,500.00
Coleman, Gaines J.	50	1,500.00	Leonard, Felix	56½	2,012.00
Coleman, John	4	1,600.00	Levy, Isabel A.	10½	3,550.00
Cook, Mrs. J. T.	28	450.00	Lewis, J. A. and Mrs.	228	7,400.00
Cook, J. T.	252½	4,419.00	Lewis, Betty	47½	800.00
Cooksey, Mrs. A. C.	272½	7,400.00	Lightner, Mrs. C. B.	101½	4,125.00
Cooksey, Wm. T.	271½	5,625.00	Livingston, A. (Mary A. Bagley estate)	202½	3,675.00
Cusseta Naval Stores	328½	5,200.00	Love, Julia	1	50.00
Do.	(1)	3,535.50	Lumpkin, F. and Ransom, E. M.	472½	4,000.00
Dalton, J. T.	177½	3,550.00	McBride, S. J.	151½	4,500.00
Daniel, John W.	101½	2,000.00	McBride, C. E.	73	4,500.00
Davis, Calvin, estate of (Mary B. Smith)	193.2	3,000.00	Do.	152½	4,500.00
Davis, John T., jr.	607½	20,225.00	McBride, E. L.	1,504½	30,000.00
Dillard, Mrs. M. H.	398	6,000.00	McCutcheon, H. C.	102½	2,050.00
Dukes, Charles W.	101½	1,500.00	McElvey, C. L., estate	595.7	35,000.00
Ellis, Jessie M.	37½	750.00	McGuirt, W. D.	138½	2,000.00
Elliott, B. F.	151½	6,000.00	McMurrin, S. D.	1,113½	21,000.00
Do.	650	12,000.00	Do.	202½	4,050.00
Elliott, Miss Alice	101½	3,037.50	Martin & McHaffey	200	31,000.00
Farr, T. E.	284½	12,500.00	McHaffey, C. R.	60	1,000.00
Foster, W. F.	461½	14,800.00	Miller, Dr. or Mrs. Mary E. Miller	90	1,000.00
Foster, Perry G.	98.1	5,373.50	Mitchell, A.	15	1,000.00
Fox, Mrs. Kate	300	6,500.00	Murdock, Mattie	1	50.00
Fuller, Mrs. D. A.	7½	800.00	Moore, E. H.	69½	500.00
Fuller, E. C.	1.49	200.00	Newsome, M. E. and Moyer, F. M.	101½	1,000.00
Games, Gus, jr.	202½	3,531.25	Parkman, W. T.	416½	12,000.00
Gafford, W. H. & S. L.	505	10,775.00	Parkman, D. R.	101½	1,000.00
Gammell, J. F. (L. L. 142)	151½	2,646.87	Pearce, B. M.	485	12,000.00
Gardner, David C.	160	2,754.20	Pekar, C. F.	152½	4,000.00
Garrett, G. J. and J. B.	810	14,580.00	Peterson, Mitchell	4	100.00
George, Lucy	2	350.00	Phillips, C. P.	100	1,000.00
George, Mrs. M. L.	622½	6,462.50	Phillips, Lucy	4	100.00
Gibbs, J. W.	153	3,325.00	Pou, Mrs. J. F. and J. D.	1,115.63	20,000.00
Gibbs, J. W. and M. E.	176½	4,000.00			
Gibbs, Thomas	234	5,300.00			
Gilbert, Mrs. S. L.	93	2,500.00			
Gord, Geo. G.	202½	3,645.00			
Grier, Mrs. Nancy	202½	4,000.00			
Hayden, Mrs. H. F.	20	700.00			

1 Turpentine lease.

Land purchased under authorization Mar. 28, 1919, by the Construction Division of the Army, Mar. 28 to July 5, 1919—Continued.

Name.	Acreage.	Price.	Name.	Acreage.	Price.
Psalmonds, J. S.	1,620	\$36,000.00	Stewart, J. M.	50	\$750.00
Purvis, L. L. (L. L. 147)	50	1,000.00	Surles, T. J.	60	1,500.00
Quick, Mrs. E. N.	167½	2,250.00	Surles, F. H.	28	700.00
Rankin, John A.	360	4,800.00	Taff, C. M.	152	3,500.00
Rhouark, C. A.	240	16,700.00	Taff, W. M.	236.9	5,616.08
Do.	101½	1,800.00	Talbot, J. F.	142½	2,100.00
Ritch, Sarah A.	1,532½	15,500.00	Taylor, Wm. (Ann)	101½	1,603.80
Roberts, W. T., estate.	385½	10,000.00	Tenney, H. K.	20	800.00
Roberts, C. F.	207½	5,100.00	Thomas, Walter.	356½	7,250.00
Robinson, H. D. and T. F.	312½	4,452.50	Thornton, Lottie.	115	1,900.00
Robinson, B. S.	177½	3,500.00	Thornton, A. L.	148.87	1,900.00
Rogers, A. H. and Taylor, J. M.	170	2,500.00	Thornton, J. H.	254.12	4,200.00
Rothschild, B. & H.	352½	4,550.00	Thomason, C. J. (L. L. 147)	101½	1,800.00
Ruleford, Dora.	8	650.00	Twiggs, Mrs. E. L. (Jennie Bo. and estate)	56	840.00
Sapp, W. A.	339	15,255.00	Van Horn, W. I.	710½	16,850.00
Sapp, W. C.	292.2	11,688.00	Van Horn, Mrs. W. L.	643½	21,300.00
Scott, W. A. and W. W.	126	1,920.00	Van Horn & Lester.	4,710	151,650.00
Schley, Mrs. F. V. (Mattie).	835½	20,893.75	Walker, John T.	25	875.00
Schley, Mrs. F. V.	214½	5,356.25	Whatley, J. T. Co.	202½	2,531.25
Schley, Campbell, Brinson, Deacon.	424	10,600.00	Whyte, M. L.	(1)	550.00
Schley, Mrs. Lillian.	201½	5,037.50	Wardlaw, W. E.	(2)	275.00
Shorter, Delia.	60	1,000.00	Weems & Adams.	5,327½	266,375.00
Simons, S. B.	164	5,140.00	Do.	385	19,250.00
Sizemore, E. J. and Pate, J. D.	202½	4,000.00	Williams, H. H.	30	800.00
Sizemore, D. F. and R. D.	233½	7,337.50	Williams, King.	50	610.00
Skinner, D. L.	2	20.00	Willis, J. L.	(2)	700.00
Skinner, L. W., et al.	100	1,500.00	Wilson, J. G.	50	820.00
Smith, Mrs. L. K.	1,187½	17,812.50	Do.	274.8	6,875.00
Smith & Ritch.	479	7,185.00	Wilson, G. J. and J. E.	353½	10,500.00
Smith, Mrs. L. K.	672½	10,087.50	Wilson, C. F.	125	4,000.00
Springer, H. A.	644	11,914.00	Wright, Mrs. Carrie.	55.6	1,650.00
Stanton, Wilkes, et al.	56	1,495.00	Wynn, E. L.	101½	1,518.75
Stephens, John Co.	284	8,937.50	Wynn, E. J.	1,578½	40,933.33
Stephens, C. V.	394½	8,000.00	Total.	74,190.26	2,529,691.45

• Right of way.

EXHIBIT C.

Lands purchased under act Feb. 28, 1920.

[Feb. 28, 1920, to Nov. 30, 1920.]

Name.	Acreage.	Price.
Adams, Ann.	2	\$400.00
Adams, Mrs. Derilda.	1,247½	31,500.00
Adams, Lillie C.	1,413½	17,677.75
Adams, Mrs. L. W. and George M.	1,100	19,425.00
Bassett, Sewell.	101½	2,125.00
Castillo, Lee, et al.	189½	2,400.00
Chaney, James.	1	250.00
Chattahoochee County Board of Education.	(1)	4,200.00
Chattahoochee County Commissioners.	½	550.00
Claxton, Mrs. Willie B.	152½	1,525.00
Coffield, Walter.	1	50.00
Dimon, Julius.	287	11,480.00
Felder, Flora, et al.	50	1,250.00
Felton, Mrs. C. McFarlane, et al.	101½	950.00
George, Minnie L., et al.	202½	3,220.00
Gilmore, Martha, et al.	150	2,700.00
Ginn, S. A.	624½	25,000.00
Ginn, T. D.	101½	1,272.00
Good Hope Baptist Church.	6½	3,000.00
Grissom, C. C.	30	355.00
Halloca Lodge, No. 1, U. B. A. Society.	1	175.00
Harris, Emmett.	3	100.00
Hart, Elizabeth Wynn, et al.	50	500.00
Hewell, Robert A.	99½	3,700.00
Ida Vesper Union, S. O. A.	1	183.94
Independent Order Calanthe, K. of P.	1	300.00
Kingsville Missionary Baptist Church.	1 ½	15.00

• Buildings.

Lands purchased under act Feb. 28, 1920—Continued.

Name.	Acreage.	Price.
Kingsville Missionary Baptist Church.....	(²)	\$200.00
La Hatte, Elizabeth J., estate.....	101½	1,250 00
Lewis, Robena H.....	10	2,145 00
McGregor Lumber Co.....	(²)	3,750 00
Miles Chapel Colored Methodist Episcopal Church.....	(²)	200 00
Miles Union Lodge, No. 8.....	(²)	100 00
Mitchell, A. P.....	101½	1,760 00
Moses Chapel A. M. E. Church.....	(²)	150 00
Mount Calvary Primitive Baptist Church.....	1	2,000 00
Mount Paron Primitive Baptist Church.....	4½	1,000 00
Muscogee County Board of Education.....	1	100 00
New Hope Baptist Church.....	1	245 00
Parker, Mrs. S. C.....	101½	3,500 00
Pate, J. D., and B. J. Sizemore.....	10	200 00
Patterson, Mattie H.....	101½	1,400 00
Pleasant Hill Primitive Baptist Church.....	1	300 00
Powers, Lydia.....	101½	2,125 00
Prosperity Baptist Church.....	(²)	200 00
Roberts, Mrs. Mary L., et al.....	202½	3,000 00
St. Luke A. M. E. Church, Colored.....	(²)	650 00
St. Peter's A. M. E. Church.....	9	2,000 00
Sapp, Ella H., et al.....	592	18,234 00
Shiloh Colored M. E. Church.....	(²)	200 00
Sizemore, Mrs. B. W.....	21	525 00
Supreme Circle, K. of P.....	(²)	50 00
Sweet Home Colored Baptist Church.....	(²)	604 25
Thornton, S. J., estate.....	101½	1,800 00
Underwood, W. H. and Mittie L.....	188½	3,450 00
Walker, Jennie, et al.....	378½	7,575 00
Willis, Cornelius, et al.....	1	50 00
Woodruff, Henry L.....	607½	67,500 00
Woolfolk, Annie K.....	306.06	65,000 00
Woolfolk, Ed. G., et al.....	512	49,640 00
	9,968.30	375,008 94

¹ Building.² Timber lease.

EXHIBIT D.

Lands acquired by payment into court of the amount of judgments rendered in the September term of United States District Court for the Northern District of Georgia, December, 1920.

Name.	Acres.	Amount.
Cunningham, W. I.....	101.25	\$1,500 00
Davis, Daniel W.....	90.00	2,700 00
Dorrington, D. P.....	25.00	750 00
Harmony Methodist Episcopal Church.....	2.00	600 00
Lamb, Ella May.....	202.50	1,518 75
Layfield, B. C.....	23.00	690 00
McBride, Abbie Lee.....	78.00	2,340 00
Ochillee Lodge and School.....	(¹)	0 00
Rogers, C. D.....	50.00	1,500 00
St. James A. M. E. Church.....	1.00	300 00
St. Peter's Lodge of O. F.....	1.00	300 00
Scott, W. A. & W. W.....	102.25	3,067 50
Spellers, Neal, estate.....	201.50	6,045 00
Taylor, Ann.....	25.00	750 00
Thomas Grove Church.....	(²)	0 00
Warner, Mrs. S. S.....	508.25	15,247 50
Willis, Phillis.....	.150	45 00
Total.....	1,412.25	\$45,783 75

¹ Interest.² Building only.

EXHIBIT E.

Obligated by verdicts and judgments taken in United States District Court for the Northern District of Georgia.

[Sept. 27, 1920, to Oct. 3, 1920.]

Name.	Acres.	Amount.	Name.	Acres.	Amount.
Anthony, M. A.....	101.25	\$4,250.00	McCardle, C. L.....	128.61	\$6,430.50
Flint, Jim.....	40	¹ 200.62	Tomblin, E. T.....	121.25	4,000.00
		1,500.00	Tomblin, J. G.....	81.25	2,500.00
Griffith, Allie C.....	101.25	¹ 933.66	Total.....	776.11	31,407.10
King, G. D.....	202.50	7,000.00			
		¹ 542.32			
		4,050.00			

¹ Interest.

EXHIBIT F.

Obligated by verdicts and judgments taken in United States District Court for the Northern District of Georgia.

[Dec. 16 to 22, 1920.]

Name.	Acres.	Amount.	Name.	Acres.	Amount.
Becker, Wm.....	202.50	¹ \$378.49	Massey, S. C.....	101.25	\$4,050.00
		2,531.25	Minter, C. C.....	95.25	2,000.00
Candler, Mrs. Lizzie Lee....	172.70	35,500.00	McCarty, estate of Amanda.	3	150.00
Evans, Etta.....	20	400.00	McBride, J. J.....	217.50	7,717.50
Emanuel Baptist Church....	(²)	644.17	Mount Olive Methodist		
Fletcher, Henrietta.....	25	² 500.00	Episcopal Church.....	(³)	200.00
Fletcher, Nick.....	25	250.00	New Hope School.....	1	200.00
Flanagan, M. C.....	177.33	3,500.00	Psalmonds, estate of F. B..	1,091.25	² 30,000.00
Gaines, estate of Ann.....	299.50	¹ 1,041.00	Pate, Mrs. Annie F.....	202.50	8,500.00
		7,000.00	Schley, W. K., and A. K....	2,175	² 97,875.00
Harris, estate of Dorety....	277.50	6,925.00	Slayton, Roxie.....	227.67	4,540.00
James, J. H.....	94.88	3,153.05	Stockdaile, S. R.....	8	350.00
James, E. B., et al.....	146.83	4,846.95	Sizemore, D. F.....	5	250.00
Johnson, Minnie.....	101.25	2,500.00	Tomblin, F. B.....	50	1,250.00
Johnson, A. C.....	36	1,000.00	Thomas, Mrs. B. C.....	403.75	12,112.50
Jones, Ben.....	50	1,250.00	Taff, Mrs. A. B.....	167.93	5,500.00
King, G. D.....	202.50	4,000.00	Total.....	6,681.34	260,114.91
King, C. N., and W. H.....	101.25	10,000.00			

¹ Interest.

² Building.

³ Appealed; motion for new trial.

EXHIBIT G.

Unpurchased land.

[Cases to be tried in the United States District Court for the Northern District of Georgia, Jan. 31, 1921.]

Name.	Acres.	Estimated judgment.	Name.	Acres.	Estimated judgment.
Becker, Wm.....	202.50	\$5,000.00	Snelling, J. R.....	506.25	25,312.00
Bland Cook Lumber Co....	(¹)	15,500.00	Snelling, Lenora.....	737	20,000.00
Burgin Lumber Co.....	(¹)	12,512.04	Snelling, S. D.....	202.50	11,000.00
Ginn, L. D.....	568	22,720.00	Taff, Sara.....	257.50	9,012.50
McGlaum, M. E.....	101.25	5,000.00	Total.....	2,600	126,656.54
Opry, Laura.....	25	600.00			

¹ Lease.

NEW TRIALS (IF GRANTED), ESTIMATED INCREASE OVER ORIGINAL VERDICT.

Psalmonds, F. B., estate of	\$40,000
Schley, W. K., and A. K.....	32,465
Total.....	72,465

Gen. LORD. Correspondence that came to our office indicated that this money was already obligated, submitted originally for the deficiency bill, but it was stricken out of the deficiency bill and we were instructed to include it in this bill and ask to have it made immediately available.

Gen. CARSON. This statement will show the whole story as to the different appropriations.

Mr. ANTHONY. All right.

Gen. CARSON. All the expenditures, and what has been obligated or judgments in the court against us.

Mr. ANTHONY. Gen. Carson, you have charge of the work that is now going on to repair buildings at the different Army camps?

Gen. CARSON. Yes, sir.

Mr. ANTHONY. Do you have charge of the work that is being done at Camp Humphreys?

Gen. CARSON. Camp Humphreys?

Mr. ANTHONY. Camp Humphreys, Va., the Engineer camp?

Gen. CARSON. Yes, sir; we have the maintenance and repair of those buildings: yes.

CONSTRUCTION AT CAMP HUMPHREYS.

Mr. ANTHONY. What work are you doing at Camp Humphreys now in regard to alterations, tearing down old buildings, etc.?

Gen. CARSON. We have recently sold a number of buildings that were reported to us as surplus, useless, fire menace, etc., and using nothing over the usual annual allotment for repair of buildings that are required for the troops; we are not doing any new construction there that I can recall—no extensive construction.

COST OF LABORERS.

Mr. ANTHONY. What are you paying for ordinary labor at Camp Humphreys now, civilian labor?

Gen. CARSON. I believe I will try to recall. I think it is in the neighborhood of \$5 a day.

Mr. ANTHONY. I wish you would look that up and insert in the record what you are paying for ordinary day labor there. The committee has received a communication from former Senator Bristow, who owns a large farm a few miles from Camp Humphreys, who states that the War Department is now tearing down or altering buildings at Camp Humphreys and that they are paying the ordinary day laborer of the community \$7 a day for that work, and it is paying a large price for prices which farmers pay for farm work.

Gen. CARSON. The buildings were sold by contract and they are being demolished by the contractor. I think we have sold the buildings.

Mr. ANTHONY. And the contractor is paying the high prices, \$7 a day for ordinary laborers?

Gen. CARSON. Yes; that is most likely because we have very few laborers down there.

Lieut. BRILL. Mr. Chairman, for the third quarter at Camp Humphreys there was one carpenter at \$160 per month, and one helper.

\$90 per month; that is all we are paying for the carpenter and help for the maintenance and repair of those buildings.

Mr. ANTHONY. What are you paying day laborers?

Gen. CARSON. There are no day laborers hired except such as may be necessitated by some particular job; we do not have any permanently hired.

Mr. CRAMTON. What is the nature of the contract?

Gen. CARSON. These buildings, after being reported surplus and being cleared, were advertised and sold to the highest bidder; and it seems to me he was required to remove the buildings without damage to the ground.

Mr. ANTHONY. I wish you would place in the record the facts as to whether any day laborers were employed in the construction service or by the Engineer Corps at Camp Humphreys during the month of December; and, if so, what was the amount per day paid for that labor.

NOTE.—All ordinary day laborers being employed, and who were employed during the month of December, by the Government at Camp Humphreys, Va., are paid 40 cents per hour. During the month of December a contract was let for the tearing down and loading on the cars of certain portable buildings which were to be shipped to other points for the housing of troops at those places. This contract was let to the only responsible man in the locality who was equipped to handle this sort of work, and was based on a unit cost per building. It is understood that this contractor paid laborers \$5 per day.

PURCHASE OF REAL ESTATE, CAMP BENNING, GA.

Mr. ANTHONY. Coming back to that proposed item for the completion of the purchase of real estate at Camp Benning, Mr. Cramton has called my attention to the appropriation bill here that carries the authority to complete the Infantry school at Camp Benning, Ga., for the purchase of real estate, \$515,252.

Gen. CARSON. Yes, sir.

Mr. ANTHONY. So that the amount asked for the purchase of real estate of that kind——

Gen. CARSON. That was last year, sir.

Lieut. BRILL. No, sir; it was not.

Mr. ANTHONY. What did you ask for?

Lieut. BRILL. The amount asked for was \$615,000. I believe I have the exact figures here—\$615,252; \$100,000 was deducted from that amount in consideration of certain lands which were excluded—those you spoke about.

Mr. CRAMTON. That left how much?

Lieut. BRILL. That left \$515,252 appropriated. Now, the \$100,000 saving which was eliminated was not realized because of the damage claims on the land which was eliminated, which had to be paid, and they amounted to \$49,365.

Mr. ANTHONY. Has the land down there gone back to the owners, or is it there still?

Lieut. BRILL. I believe it has gone back to the owners.

Gen. CARSON. This item here is wholly for land that is authorized to be retained and within the limits of the camp, and to satisfy judgments that have been entered against the Government in the courts.

Mr. CRAMTON. How much are those judgments; and would the language that you have just suggested in your amendment authorize the payment of those judgments out of the money?

Gen. CARSON. I think so, sir. We had on December 31, out of all the appropriations heretofore made, a balance of \$12,942.

Mr. ANTHONY. On account of this Camp Benning item?

Gen. CARSON. On account of Camp Benning; we are obligated, by reason of judgments of the United States District Court for the Northern District of Georgia, September 27 to October 3, 1920, a total of 776 acres, \$31,407.

Mr. ANTHONY. Is that on this land in question that you propose to buy?

Gen. CARSON. Yes, sir. Obligated by judgments taken in United States District Court for the Northern District of Georgia, September 16 to December 22, 1920, a total of 6,681 acres, involving \$260,114—I am not giving you the odd cents.

Mr. CRAMTON. No.

Gen. CARSON. Unpurchased land December 31, 1920, necessary to be bought, pending in the United States District Court for the Northern District of Georgia, 2,600 acres; and the estimate is that judgments will amount to \$126,656.

Mr. ANTHONY. I wish you would insert in the record the number of acres that it is proposed to complete the purchase of with this \$482,000; and the amount of the judgments for damages; and the amount of claims for damages, obligations, say, on land that have accrued.

Lieut. BRILL. I do not believe any damages accrued; it is all for the actual payment of the judgments against the Government for land.

Mr. CRAMTON. That is, condemnation proceedings?

Lieut. BRILL. Yes, sir; that have been completed.

Mr. CRAMTON. You say that last year you got \$515,000 to complete the Benning purchase with the exception of one item. That one item has cost you \$49,000 or \$49,515; and you have got \$564,000 over what you estimated would be sufficient to complete the purchase of the land and pay the \$49,000 damages on the tract that you did not purchase. Now you come in and ask for \$482,000 more still to complete the purchase. I can not get through my head at all the necessity for this. Is it that you are extending the limits beyond what we contemplated a year ago, or is it that you paid practically twice as much for that land as your estimate covered before and as contemplated?

Lieut. BRILL. The estimate made before—I had nothing personally to do with it, but I know it was made up upon options covering 29,000 acres with additional amounts to be purchased, and on an estimate as to what it would cost to purchase the remaining 10,458 acres. Those options on which the estimate was made—I do not have the exact date here, but I know it was made the summer of 1918—and when it came to actually securing this land, condemning it, the proceeding was this: The Government picked one member of a board of appraisers, we will say; the owner picked one member of this board, and those two members picked the third member. These three members formed a board who were to determine the value of the land

Mr. CRAMTON. Here is the proceeding in Congress; Congress is given to understand that \$515,000 will buy the land that is necessary. I remember the debate in the House, that is, the purport of it, what it was going to be per acre, etc. All those considerations influenced the House as to the purchase of the land; and now it develops that the land costs twice as much as the House was given to understand.

Lieut. BRILL. I am trying to explain how it was.

Mr. CRAMTON. But what I would like to do is to have some gentleman of the War Department responsible for that on the floor of the House to defend it in the place of this committee.

Lieut. BRILL. I do not think anybody in the War Department has been responsible for the change in price of the land. This board of appraisers, we will say—the Government picked one member, the owner picked one member, and those two chose the third member, and they were empowered by the court to call witnesses and administer oaths and take testimony, etc., and render a verdict as to the value of the land; and that verdict as to the value of the land determined the amount that the Government had to pay for it.

Mr. CRAMTON. So the guess of the officials as to the price of the land was a rather poor guess?

Lieut. BRILL. Well, in some cases it has been apparent that the members of this board have favored to a very large extent the owners of the property because they happened to live in the locality and they gave the benefit to their locality instead of to the Government. For instance, in one instance there were three cases; the verdicts were rendered in the district court in December as these cases were awarded. After a trial by jury the cost to the Government was made \$72,465 less than these three members of the board had fixed the cost to the Government. The Government appealed from the decision of the board to a trial by jury and benefited by their verdict to the extent of \$72,465 less than the board gave. Of course, the property owners involved have appealed and now it has got to go to a new trial before we can know whether the Government will gain that \$72,000 or lose it.

Mr. ANTHONY. Was the greater part of that reservation there purchased as a result of contracts made with the owners?

Gen. CARSON. Yes, sir.

Mr. ANTHONY. Those purchases were completed on the basis of the options that the Government held?

Gen. CARSON. Yes, sir.

Mr. ANTHONY. But there were scattered over the reservation individual owners who would not enter into a contract with the Government, who would not enter into a contract or refused to sell, so that the Government finally forced the condemnation proceedings, and these tracts have had to go through this process you speak of with these local boards?

Lieut. BRILL. That is it exactly.

Mr. ANTHONY. As compared with the price of the contracts?

Lieut. BRILL. Yes; and just very recently the Assistant Secretary of War visited Camp Benning and he discovered the fact that in some cases, very few cases, the owners had previously been ejected and there was no money available to pay them.

Mr. ANTHONY. Is any of this \$482,000 to be used in the purchase of a tract of land, as I remember, which is located in the point of the Choctawhatchee River down there which it was stated to us you could get along without using?

Gen. CARSON. No, sir; it is to purchase land that Congress has authorized us to purchase.

FOR CONSTRUCTION OF OFFICERS' QUARTERS.

There is one provision I want to submit, to temporarily modify the legislative restrictions on the cost of building, because we have found it impossible to erect officers' quarters, for example, under the limitations imposed.

Mr. ANTHONY. For instance, the limitation on the construction of officers' quarters now is how much for each grade?

Gen. CARSON. It is \$15,000 for a general officer, \$12,000 for a field officer, and about \$9,000 for a captain and for a company officer.

Mr. ANTHONY. And you propose to make it how much in the new proviso?

Gen. CARSON. We want to double it, but with this restriction also; that no quarters should be constructed, the floor area of which, excluding halls, bathrooms, closets, pantries, porches, garrets, and so forth—I want to strike out that word "garrets"—I do not want that in there, it would be too wide open—shall exceed in the case of a general officer the area of 2,200 square feet; in the case of a colonel or an officer above the rank of captain, the area of 1,750 square feet; and of an officer of and below the rank of captain, 1,400 square feet. That is based on the minimum limits that we have been able to figure as practicable.

Mr. ANTHONY. Have you always used the unit of square feet as determining the amount of space the officer needed?

Gen. CARSON. Not always.

Mr. ANTHONY. This is something new?

Gen. CARSON. This is something new; this is the minimum requirements; and we thought that by attaching that limitation to the proposed increasing of price—

Mr. ANTHONY. I wish you would quote exactly the present law that limits the amount you can use for the construction of officers' quarters and then in connection with it insert the proposed proviso and we can give it consideration.

NOTE.—"Permanent barracks and quarters: Permanent barracks or quarters and buildings and structures of a permanent nature shall not be constructed unless detailed estimates shall have been previously submitted to Congress and approved by a special appropriation for the same, except when constructed by the troops; and no such structures, the cost of which shall exceed \$20,000, shall be erected except by special authority of Congress. It shall be the duty of all officers of the United States having any of the title papers (property purchased or about to be purchased for erection of public buildings) in their possession to furnish them forthwith to the Attorney General. No public money shall be expended until the written opinion of the Attorney General shall be had." (Sec. 1136, R. S., as amended by act of Feb. 27, 1877 (19 Stat., 202).

This provision was amended in the Army act approved May 12, 1917, in so far as the construction of hospitals is concerned, the limitation on this class of buildings being raised from \$20,000 to \$30,000.

"Limit of cost, officers' quarters, etc.: Hereafter no money appropriated for military posts shall be expended for the construction of quarters for officers of the Army, or for barracks and quarters for the Artillery the total cost of which, including the heating

and plumbing apparatus, wiring and fixtures, shall exceed in the case of quarters of a general officer the sum of \$15,000; of a colonel or an officer above the rank of captain, \$12,000; and of an officer of and below the rank of captain, \$9,000. (Sec. 1, act of June 25, 1910 (36 Stat., 721).)

Gen. CARSON (reading):

Provided further, That no building or structure of a permanent nature shall be erected whose cost shall exceed \$40,000, except by special authority of Congress.

Mr. ANTHONY. The limitation now is how much?

Gen. CARSON. \$20,000.

Mr. ANTHONY. \$20,000?

Gen. CARSON. Yes, sir.

Mr. ANTHONY. Because, now, in 1920, you can not build anything for \$20,000 that amounts to anything?

Gen. CARSON. No, sir.

Provided further, That no money appropriated for the support of the Military Establishment shall be expended for the construction of quarters for officers of the Army the total cost of which, including the heating and plumbing apparatus, wiring and fixtures, shall exceed in the case of quarters of a general officer the sum of \$30,000; of a colonel or an officer above the rank of captain, \$24,000; and of an officer of and below the rank of captain, \$9,000; provided that no quarters shall be constructed the floor area of which, excluding halls, bathrooms, closets, pantries, porches, etc., shall exceed in the case of a general officer the area of 2,200 square feet; in the case of a colonel or an officer above the rank of captain, the area of 1,750 square feet; and of an officer of and below the rank of captain, 1,400 square feet: *Provided further*, That no building or structure of a permanent nature shall be erected whose cost shall exceed \$40,000, except by special authority of Congress.

Now, there is another word I should like to say before leaving this item of barracks and quarters, for Mr. Cramton's information, and in further explanation of this apparently large increase over the previous estimates, that in addition to increase in costs which may go down before this money becomes available, we have not as much surplus material to work on as we have had in the past, and this year particularly, as it has been almost entirely consumed. While there is a lot of lumber that may be obtained from abandoning certain camps or parts of camps, all of that lumber can not be used; when a building is wrecked we do not get 100 per cent of lumber out of it, and a great deal of that is being used at the camps for making repairs; and then before we sell any material at these camps to be abandoned, we salvage all that is worth salvaging, that pays us to salvage, and the balance of it is sold with the buildings when they are disposed of. We have found by actual experience that it does not pay to salvage a lot of material because of the labor cost in doing so.

We might salvage a lot of lumber, at Camp Custer, more than we need in that particular area, and it would not pay us to ship it to Camp Devens, Mass., or Camp Lewis, Wash., for example; and then, furthermore, under that item, beginning with the 1st of July, we will undertake the maintenance and repair of all the air service stations which we do not do now, and which they have been carrying under their own appropriation and will not carry under next year's appropriation.

BARRACKS AND QUARTERS, PHILIPPINE ISLANDS.

Mr. ANTHONY. Well, let us go on to barracks and quarters, Philippine Islands.

Gen. LORD. On page 65.

Mr. ANTHONY. You are asking for \$314,000 for the next fiscal year. There is appropriated \$300,000 for the current fiscal year. Will you tell us how much of that has been allotted and expended so far?

Lieut. BRILL. The entire amount has been allotted.

Mr. ANTHONY. How much has been contracted for or expended?

Lieut. BRILL. Allotment with us is equivalent to expending.

Gen. CARSON. We have allotted money to that extent.

Lieut. BRILL. We have allotted money to the people out there.

Mr. ANTHONY. Are these barracks in process of construction?

Gen. CARSON. There is no new construction.

Lieut. BRILL. There is no new construction.

Mr. ANTHONY. It is just for maintenance?

Barracks and quarters, Philippine Islands.

Item No.	Name of Item.	Apportioned, fiscal year 1921, for 175,000 men.		Estimated, fiscal year 1922, for 150,000 men.	
		Amount.	Capita.	Amount.	Capita.
0602. 113	Shelter and protection of officers and enlisted men, animals, and supplies and all other buildings necessary for post administration purposes in the Philippine Islands, maintenance, operation, and repair...	\$230,000.00	\$1.31	\$244,000.00	\$1.63
406. 113	Rental of grounds for providing the proper shelter and protection of officers and enlisted men of the Army, and for animals and supplies and all other buildings necessary for post administration purposes, including rentals for the United States troops in China.....	70,000.00	.40	70,000.00	.40
	Total.....	300,000.00	1.71	314,000.00	1.03

Item No.	Name of Item.	Estimated, fiscal year 1922, for 175,000 men.		Estimated, fiscal year 1922, for 280,000 men.	
		Amount.	Capita.	Amount.	Capita.
0602. 113	Shelter and protection of officers and enlisted men, animals, and supplies and all other buildings necessary for post administration purposes in the Philippine Islands, maintenance, operation, and repair...	\$244,000.00	\$1.394	\$244,000.00	\$1.394
406. 113	Rental of grounds for providing the proper shelter and protection of officers and enlisted men of the Army, and for animals and supplies and all other buildings necessary for post administration purposes, including rentals for the United States troops in China.....	70,000.00	.40	70,000.00	.40
	Total.....	314,000.00	1.794	314,000.00	1.794

Gen. CARSON. There are two main barracks, Fort McKinley, and Camp Stotsenburg, about 60 miles from Manila. Fort McKinley was erected about 20 years ago and has nearly gone to pieces. Stotsenburg is in a very dilapidated condition. Some new construction has been done at Stotsenburg; a lot of buildings are being maintained directly for this purpose, and also such permanent artillery posts as those at the mouth of Manila Bay and Subig Bay.

Mr. ANTHONY. Are the forts you mention, McKinley and Stotsenburg, constructed of permanent materials?

Gen. CARSON. Originally, no; they were constructed of wood.

Mr. ANTHONY. But there has been then some permanent construction there?

Gen. CARSON. Some at Stotsenburg.

Mr. ANTHONY. None at McKinley?

Gen. CARSON. No, not that I know of or that I now recall.

Of this amount of \$300,000 appropriated last year, \$230,000 was allotted under that item, shelter and protection of officers, enlisted men, animals and supplies, and other buildings necessary for post administration purposes in the Philippine Islands, maintenance, operation and repair; the other \$70,000 was allotted for rental of ground and providing proper shelter, and protection of officers and enlisted men of the Army, and including also, shelter for the animals and supplies, and all other buildings necessary for post administration purposes, and for shelter and repair thereof, and rentals for the United States troops in China; and of that \$70,000 about \$66,000 this year is required for the use of the troops in China.

Mr. ANTHONY. How many troops are we maintaining in China?

Gen. CARSON. I think there are two battalions and the headquarters of the Fifteenth Infantry.

Mr. ANTHONY. What is the number of troops of the Regular Army that are in the Philippine Islands?

Gen. CARSON. I will have to insert the exact number. It is in the neighborhood of 12,000 or 13,000.

Mr. ANTHONY. So that practically all of this is for repair, maintenance and rentals.

Gen. CARSON. Yes, sir; you see it is practically the amount that was appropriated for the current year. There is a difference of \$14,000 which is taken up in that item for shelter and protection of officers and enlisted men.

CONSTRUCTION OF OFFICERS QUARTERS.

Mr. ANTHONY. Is it necessary to provide in this item for the increased amounts for the construction of officers' quarters?

Gen. CARSON. That restriction has been applied to construction out there; except where it has been specifically exempted that restriction has been applied to all.

Mr. ANTHONY. Yes; but you are asking for an increase here from \$8,000 to \$16,000; and from \$6,000 to \$12,000; and from \$4,000 to \$8,000.

Gen. CARSON. It will apply there, sir, as necessary.

Mr. ANTHONY. That general proviso you suggested would apply if it was adopted, would it not?

Gen. CARSON. Yes, sir; oh, yes, sir.

Mr. ANTHONY. You state under this \$314,000:

No new construction is contemplated, with the exception of the proviso that not to exceed \$150,000 may be used in the erection and completion of an ice and cold storage plant on the Fort Reservation, Manila.

Gen. CARSON. That may be omitted, as the amount was eliminated from our estimates before they left the office of the Secretary of War.

Mr. ANTHONY. Well, do you need the whole \$314,000 then for repair, maintenance, and rent?

Gen. CARSON. Yes, sir.

Mr. ANTHONY. And you could get along without this \$150,000?

Gen. CARSON. We will have to. The authorities of the Department of the Philippines have very urgently asked for this cold-storage plant because of the rather high charges that they have to pay now to rent space in what is known as the insular government plant, which they state or report is under contemplation of being sold to private parties; but we could get along without that.

ROADS, WALKS, WHARVES, AND DRAINAGE.

Mr. ANTHONY. The next item is roads, walks, wharves, and drainage. You are asking for \$3,500,000 for the next fiscal year.

Roads, walks, wharves, and drainage.

Item No.	Name of item.	Apportioned, fiscal year 1921, for 175,000 men.		Estimated, fiscal year 1922, for 150,000 men.	
		Amount.	Capita.	Amount.	Capita.
0909.112	Roads, walks, and drainage, installation of, and dredging channels.....	\$200,000.00	\$1.14	\$8,550.00	\$0.05
0910.112	Railroads, sidings, and switches (Quartermaster Department only), installation of.....			10,800.00	
0911.112	Wharves (Quartermaster Department only), installation of.....	100,000.00	.57		
1009.112	Roads, walks, and drainage, including care and improvement of grounds at military posts and stations, operation, maintenance, and repair..	2,463,721.00	14.08	3,030,581.00	20.26
1010.112	Railroads, sidings, and switches (Quartermaster Department only), maintenance and repair of..	136,279.00	.77	350,000.00	2.33
1011.112	Wharves (Quartermaster Department only), maintenance and repair of.....	100,000.00	.57	100,000.00	
	Total.....	3,000,000.00	17.14	3,500,000.00	22.64

Item No.	Name of item.	Estimated, fiscal year 1922, for 175,000 men.		Estimated, fiscal year 1922, for 200,000 men.	
		Amount.	Capita.	Amount.	Capita.
0909.112	Roads, walks, and drainage, installation of, and dredging channels.....	\$8,550.00	\$0.048	\$8,550.00	\$0.04
0910.112	Railroads, sidings, and switches (Quartermaster Department only) installation of.....	10,800.00	.062	10,800.00	
1009.112	Roads, walks, and drainage, including care and improvement of grounds at military posts and stations, operation, maintenance, and repair..	3,030,581.00	17.317	3,030,581.00	14.9
1010.112	Railroads, sidings, and switches (Quartermaster Department only), maintenance and repair of..	350,000.00	2.00	350,000.00	
1011.112	Wharves (Quartermaster Department only), maintenance and repair of.....	100,000.00	.571	100,000.00	
	Total.....	3,500,000.00	20.00	3,500,000.00	22.9

Gen. CARSON. If you will pardon me, Mr. Anthony, do you wish to hear Maj. Walsh on any of those items? He is here, and if you wish to hear him perhaps it would be better to do so before we take up this item.

Mr. ANTHONY. We do not want to go into a whole lot of little items there in regard to which a brief statement could be inserted in the record. I think if he is here we will ask him about the principal items.

Now, Gen. Carson, we come to roads, walks, wharves, and drainage. You are asking for \$3,500,000 for the next fiscal year?

Gen. CARSON. Yes, sir.

Mr. ANTHONY. For 1921 there was appropriated \$3,000,000 for this purpose. Now, can you tell us how much has been allotted of that appropriation and how much has been expended?

Gen. LORD. \$1,356,521.24 was allotted for expenditures up to January 7, 1921.

Mr. ANTHONY. That means it has been practically expended?

Gen. LORD. That is equivalent to it; it is treated as disbursements.

Mr. ANTHONY. Will it take the whole amount appropriated to carry you through to the fiscal year?

Gen. CARSON. Yes, sir; the spring of the year brings heavier demands on that appropriation than any other time. Under roads, walks, wharves, and drainage the total is \$500,000 more—they estimate \$500,000 more than the total appropriation for the current year, and that difference is largely due to the fact that under this item also we undertake these repairs and maintenance and operation of all the air stations, which we did not have this year; they have been thrown upon us principally under these two items numbered 1009 and 1010.

Mr. ANTHONY. Of the total amount of \$3,500,000 approximately how much do you propose to expend on air stations?

Gen. CARSON. We have only estimated that, sir.

Mr. ANTHONY. At what have you estimated it?

Gen. CARSON. Speaking approximately, at \$100,000, plus probably \$100,000—\$200,000 altogether.

Mr. ANTHONY. The greater amount of this appropriation is expended for just the purposes that the language states—for maintenance and repair?

Gen. CARSON. Yes, sir.

Mr. ANTHONY. It must have been spent for new construction.

Lieut. BRILL. There are two items of new construction, one for \$8,555, and another—two items combined totaling \$10,869.

Mr. ANTHONY. The two items combined make \$18,000?

Lieut. BRILL. The total amount to be used for new construction under those two items is \$19,419.

Mr. ANTHONY. Is there any large construction at any one place contemplated under this?

Gen. CARSON. No, sir; the \$8,555 is for the reserve storage depot at New Cumberland, Pa., in connection with the garage.

Mr. ANTHONY. Where are you going to complete railroad sidings and switches?

Gen. CARSON. One at Camp Boyd, Tex., \$6,311; and one at Camp Normoyle, Tex., \$4,558.

Mr. ANTHONY. Where is Camp Boyd, near Columbus?

Gen. CARSON. Camp Normoyle is near San Antonio; Camp Boyd is near El Paso.

Mr. ANTHONY. El Paso?

Gen. CARSON. Yes.

Mr. ANTHONY. What is Camp Boyd, a Motor Transport camp?

Gen. CARSON. Motor Transport; so is the one at Normoyle.

Mr. ANTHONY. You are asking no money for wharves?

Gen. CARSON. No new construction for wharves; just maintenance; that is all.

IMPROVEMENT OF GROUNDS AT MILITARY POSTS.

Mr. ANTHONY. But you ask for \$3,030,000 for the care and improvement of grounds at military posts and stations, operation and maintenance of roads, walks, and drainage. Is that the normal cost of caring for these items at military posts, or does this include a considerable expenditure at these new camps?

Gen. CARSON. I should call it a normal amount, sir. For instance, this current year we had allotted to us roughly \$2,463,000, and we have the same points to take care of next year, and in addition the various Air Service stations.

Mr. ANTHONY. Approximately how much of this item will be expended at the old military posts, and how much of it will go into the new Army camps acquired since the war; could you tell us?

Gen. CARSON. No, sir; I can not tell you offhand.

Lieut. BRILL. Under the appropriations this year we can not spend it for National Army camps; that is specified in the bill.

Mr. ANTHONY. You mean it goes for the old Army posts?

Lieut. BRILL. For the old Army posts; and the estimates for next year are practically on the same basis with very little difference.

RAILROAD SIDINGS, SWITCHES, MAINTENANCE, ETC.

Mr. ANTHONY. The next item is railroads, sidings, and switches, maintenance and repair, \$350,000. How many miles of railroads, sidings, and switches does the War Department maintain?

Gen. CARSON. I have not that figure here.

Mr. ANTHONY. We asked for it to be inserted in the record.

Gen. ROGERS. I think Gen. Connor is going to get that information (See p. 662.)

Mr. ANTHONY. I suppose this is figured on the actual cost of the maintenance of these tracks?

Gen. CARSON. Yes, sir; and this current year we have had very little, apparently. I have the figure there that shows the amount expended this year.

Gen. LORD. For railroad sidings, \$66,422.

Gen. CARSON. We have done nothing at numerous other depots. I say numerous the other depots, Quartermaster Corps, the so-called Army reserve depots, and so forth, where there is a great deal of siding; and there has been practically none, as shown by the amount allotted. Next year we will have to make up for that because the work of repair will be taken care of, and it means a great deal of course; also railroad sidings at the various camps, too.

Mr. ANTHONY. There are railroad tracks and sidings at all of these National Army camps?

Gen. CARSON. Yes.

Mr. ANTHONY. At practically every one of these nine divisional points at which you propose to station the Army. Most of the money, then, will go toward maintenance and upkeep?

Gen. CARSON. Toward maintenance and upkeep of this.

Mr. ANTHONY. Maintenance and upkeep of railroad tracks at these —

Gen. CARSON. Divisional camps.

Mr. ANTHONY. Divisional camps.

Gen. CARSON. And the various Army bases, reserve depots, etc.

Mr. ANTHONY. But you are not planning to build any new tracks at these places?

Gen. CARSON. No, sir.

Mr. ANTHONY. \$100,000 is asked for wharves, maintenance, and repair.

Gen. CARSON. That is the same as for the current year.

Mr. ANTHONY. That is the amount of money it takes to keep them in repair?

Gen. CARSON. Yes, sir.

Lieut. BRILL. We have already spent more than that this current year.

Gen. LORD. \$119,000 up to January 7.

Mr. ANTHONY. Is there contemplated any construction of new wharves, or is this just simply for maintenance and repairs?

Gen. CARSON. No new construction; it is simply for maintenance and repairs.

Mr. ANTHONY. All right; leave that item, then.

ROAD FROM FORT HOWARD TO BALTIMORE, MD.

Gen. CARSON. Just a moment, there is this authority desired without changing the total of the estimate, it is as follows:

Provided, That not to exceed \$7,500 of the amount appropriated under this heading may be used for the Government's share of the improvement of the unimproved portion of the road from Fort Howard to Baltimore, Md.

Gen. CARSON. Fort Howard has recently been made headquarters of the Third Corps area, and that increases the activities of the place. In its present condition the road is practically impassable in wet weather and causes serious inconvenience to the business of headquarters, particularly in view of the fact that ice may interrupt communication by boat.

Mr. ANTHONY. How many miles long is this road?

Lieut. BRILL. The section to be improved is approximately 1½ miles long; it is only part of the road, the part from the post to where the street railway crosses the road; from there on it is improved at the present time.

Mr. ANTHONY. Is it located on the military reservation, or outside?

Gen. CARSON. Outside.

Mr. ANTHONY. How much of this improvement is it proposed the Army shall pay?

Gen. CARSON. Fifty per cent.

Mr. ANTHONY. In view of the fact that the Government is the principal user of the road?

Gen. CARSON. More than 50 per cent of the traffic using that road is Government traffic.

Mr. ANTHONY. Are there any other instances where the Government has contributed to the improvement of roads?

Gen. CARSON. Yes, sir; I think in last year's appropriation bill there was an item for money to be spent on the restoration of a road at Tenafly, N. J.

Mr. ANTHONY. At Camp Vail?

Gen. CARSON. Camp Vail, yes; that is one that occurs to me off-hand.

Mr. DENT. Where is Camp Vail?

Gen. CARSON. Camp Vail, N. J.

Mr. DENT. From Senator Frelinghuysen's district?

Gen. CARSON. Yes, sir.

Mr. ANTHONY. Is this road located within the limits of Baltimore?

Gen. CARSON. No; Howard is 20 miles down the bay from Baltimore, I think.

Mr. ANTHONY. What kind of a post is Fort Howard?

Gen. CARSON. It was a Coast Artillery post.

Mr. ANTHONY. A marine base?

Gen. CARSON. Part of the original coast defenses of Baltimore; but since then the development is such that it is obsolete for that purpose. It is now being utilized to house the corps headquarters. It is modern in that the permanent quarters there and the barracks have been prepared for the use of offices, etc.; a number of officers are stationed there.

Mr. ANTHONY. And they propose to keep a division of troops at Camp Meade, do they not?

Gen. CARSON. A division of troops; yes.

Mr. ANTHONY. Where are the headquarters of that division to be Camp Meade?

Gen. CARSON. Camp Meade.

Mr. ANTHONY. Or at Fort Howard?

Gen. CARSON. Camp Meade.

Mr. ANTHONY. The corps commander will have headquarters at Fort Howard?

Gen. CARSON. Yes, sir; the area or corps commander.

Mr. ANTHONY. All right, we will put that proposed provision in the record.

Mr. DENT. General, if the proviso were adopted, how would you jointly construct a road—the Government and the State authorities—who—

Gen. CARSON. We would enter into a contract with the county or local authorities to do the work, we to bear a certain part of the expense not to exceed this amount.

Mr. DENT. Who would supervise the construction of the road under the joint arrangement to see that the road was properly constructed?

Gen. CARSON. That we would probably leave largely to the county authorities, because they might want to spend more than \$7,500 before they got through with it, but that would be our share.

Mr. DENT. You would just simply contribute this much money and let them build the road?

Gen. CARSON. Yes, sir; we would see that the road was sufficient for our needs.

Gen. ROGERS. May I make a statement, Mr. Chairman?

Mr. ANTHONY. Certainly.

Gen. ROGERS. A good example of that, Mr. Dent, is that road—I do not know whether you have been down to San Antonio or not—we had to bear part of the expense, 50 per cent, just as in this case, to reconstruct a road out to Leon Springs—the Government contributed 50 per cent of the cost of the road because of the damage it had done to the county road; we entered into a contract with the county authorities and we jointly supervised the construction of that road.

Gen. CARSON. I did not read all of this letter; I think I had better read it in here. In connection with the repairs to this road at Fort Howard, the commanding officer of the area reports that previously Fort Howard was a small Coast Artillery post garrisoned by two companies. Since it has been designated as headquarters for the Third Corps area its importance has been greatly increased by that designation, and it is absolutely necessary for the proper functioning of these headquarters that the base should have reliable communication with Baltimore. In this locality service by boat is not sufficient; good road facilities are essential. It was only after great effort that an agreement could be reached by which the county authorities would pay 50 per cent of the cost of the road work.

CONSTRUCTION AND REPAIR OF HOSPITALS.

Mr. ANTHONY. Let us take up "Construction and repair of hospitals," on page 67. You are asking in this bill for \$1,509,900. During the current year there was appropriated \$1,594,900 for this. Will you please tell us how much of this current appropriation has been allotted and how much expended?

Lieut. BRILL. Of the total appropriated, Mr. Chairman, \$594,900 is specifically mentioned in the bill for new construction, leaving only \$1,000,000 for ordinary maintenance and repair. Of that \$1,000,000, \$758,468.03 had been allotted up to December 31.

Gen. LORD. On January 7th the total allotment was \$760,852.99.

Mr. ANTHONY. So that you will use the full amount of the allotment?

Lieut. BRILL. Yes, sir; we have already used more than three-quarters of it for half the year.

Mr. ANTHONY. And you expended approximately \$500,000 of that for new construction?

Lieut. BRILL. \$594,900 was specifically authorized for new construction at the Letterman General Hospital and also at Walter Reed General Hospital.

Mr. ANTHONY. Now, of this appropriation for the next fiscal year how much are you asking for new construction?

Lieut. BRILL. Nothing.

Gen. CARSON. Nothing, sir, for new construction.

Construction and repair of hospitals.

Name of Item.	Apportioned fiscal year 1921 for 175,000 men.		Estimated fiscal year 1922 for 150,000 men.		Estimated fiscal year 1922 for 175,000 men.		Estimated fiscal year 1922 for 280,000 men.	
	Amount.	Per capita.	Amount.	Per capita.	Amount.	Per capita.	Amount.	Per capita.
Hospitals, including out-buildings and necessary temporary hospitals and quarters for hospital personnel, and also including heating and laundry apparatus, all plumbing, water supply and sewage systems, electric wiring and fixtures, cooking apparatus, and roads and walks for the same. Construction of and additions to buildings for use as hospitals.	\$594,900	\$3.400						
Hospitals, including out-buildings and necessary temporary quarters for hospital personnel and the alteration of buildings for use as hospitals, and also including heating and laundry apparatus, all plumbing, water supply and sewage, electric wiring and fixtures, cooking apparatus, and roads and walks for same, operation, maintenance, and repair of.	969,589	5.540	\$1,493,900	\$9.959	\$1,493,900	\$8.536	\$1,493,900	\$5.17
Rental of grounds and buildings for use for hospital purposes, including temporary quarters for hospital personnel, and out-buildings, buildings, heating and laundry apparatus.....	30,411	.173	16,000	.106	16,000	.091	16,000	.05
Total.....	1,594,900	9.113	1,509,900	10.066	1,509,900	8.628	1,509,900	5.22

Mr. ANTHONY. How do you propose to expend the money in item 605, where you ask \$1,493,000--practically the whole of the appropriation?

Gen. CARSON. That is the maintenance and repair of all hospitals both at old posts and hospitals at these camps; that is all I can say.

Mr. ANTHONY. Now, is this appropriation to take care of maintenance and repair of any of the hospitals that were used to take care of the soldiers returned from the war?

Gen. CARSON. Only those that are still held by the Medical Corps of the Army. How about that, Maj. Kramer?

Maj. KRAMER. Yes; in the general hospitals we still have about 500 overseas patients who have not been discharged from the service as military patients. In addition to that, we have about 600 discharged soldiers whom we are caring for as beneficiaries of the Bureau of War Risk Insurance.

Mr. ANTHONY. How many of these new hospitals are you maintaining solely on account of soldiers' new hospitals constructed for taking care of soldiers of the present war?

Col. BROOKE. We have no hospitals at camps which have been abandoned. As to those camps which were constructed during the war and which are garrisoned now, hospitals have to be maintained of course.

Gen. CARSON. You have given up the general hospital at Fox Hills, New York.

Col. BROOKE. Yes, sir.

Gen. CARSON. And at Oteen, N. C., have you not?

Col. BROOKE. The only new hospital we are really maintaining is the Fitzsimons General Hospital at Denver, Colo.; and that is really being maintained in lieu of the old hospital at Fort Bayard, N. Mex., which was loaned to the Public Health Service.

Gen. CARSON. That is what Mr. Anthony wants—at what outside camps and posts you are maintaining hospitals.

Col. BROOKE. The Army and Navy General Hospital in Arkansas; the Fitzsimons General Hospital at Denver, Colo.; the Letterman General Hospital at San Francisco; and the Walter Reed General Hospital at Takoma Park.

Mr. ANTHONY. Is this estimate based on an Army of 280,000 men?

Col. BROOKE. No, sir; 175,000.

Mr. ANTHONY. If the figures were still further reduced to 150,000 men, could this appropriation be reduced in proportion, or is it constant?

Gen. CARSON. I do not think so; it is constant at stations. As long as we are maintaining the hospitals these expenses will be incurred, and a difference of 25,000 men would not be noticeable.

MAINTENANCE OF HOSPITALS AT OLD ARMY POSTS.

Mr. ANTHONY. I will ask you the same question with reference to that item as to the other one: Could you analyze it for the record and show just how much of this appropriation will be used to maintain the hospitals in the old Army posts, and how much of it will go into the hospitals at the new Army posts and cantonments?

Gen. CARSON. Yes, sir; I will get that for you. Do you want it in percentage to get the proportion?

Mr. ANTHONY. Yes; so we can get an idea of about what these new institutions are taking and what they are costing.

Gen. CARSON. And approximately what percentage will be required for the maintenance of hospitals in the camps and what percentage in the old posts?

The estimate for the appropriation for maintenance and repair of hospitals under the appropriation "Construction and repair of hospitals" (item 0605.114) is divided between old posts and new camps in the proportion of 50 per cent at old posts and 50 per cent at new camps. Attention is invited to the fact that there was established during the war a general hospital at Denver, Colo., which is to be a permanent hospital. However, because of the date of establishment it must be classed with the new camps. This is the reason for the high percentage at new camps. Should this hospital, which is a permanent affair, be classified with the old posts, the division stands: Old posts 60 per cent and new camps 40 per cent.

FOR RENTAL OF GROUNDS AND BUILDINGS FOR HOSPITAL PURPOSES.

Mr. ANTHONY. You are asking \$16,000 for rental of grounds and buildings for use for hospital purposes, including temporary quarters for hospital personnel, and outbuildings, heating and laundry apparatus.

Lieut. BRILL. Where is that?

Mr. ANTHONY. That is the last item.

Lieut. BRILL. I do not have that itemized.

Mr. ANTHONY. Will you insert in the record a statement of the purposes for which this \$16,000 item will be used?

List of rentals under "Construction and repair of hospitals," fiscal year 1922.

Douglas, Ariz., Douglas Block.....	\$450.00
Middletown, Pa., Carlisle, Pa., between 30 and 40 acres garden meadow, skating pond and park.....	399.96
Brownsville, Tex., $\frac{1}{2}$ of lots 4 and 12 and lots 5-11.....	120.00
Marfa, Tex., lots 4 and 5, block 3, Mitchell Heights addition.....	120.00
Baltimore, Md., 2 leases hospital No. 7.....	1.00
Des Moines, Iowa, Army dispensary.....	600.00
Camp Benning, Ga., prophylactic station.....	180.00
Aurora, Colo., Denver, Colo., 9.98 acres right of way General Hospital No 21.....	249.96
Honolulu, Hawaii.....	300.00
Norfolk, Va., Medical Corps prophylactic station, 232 Court Street, Norfolk, Va.....	360.00
Atlanta, Ga., prophylactic station, Chattanooga, Tenn.....	240.00
Baltimore, Md., prophylactic station, 124 Liberty Street.....	1,200.00
Brownsville, Tex., base hospital.....	600.00
Fort Clarke, Tex., hospital site, Del Rio, Tex.....	1.00
Camp Benning, Ga., hospital, Columbus, Ga.....	3,300.00
New York City, power plant, General Hospital No. 8.....	271.20
New York City, highway for General Hospital No 8.....	36.00
Azalea, N. C., transmission line.....	4.92
Philadelphia, Pa., office space.....	200.00
Philadelphia, Pa., office space.....	48.00
Winthrop, Mass.....	1,404.00
Columbia, Union Hospital.....	10.00
Borough of Richmond.....	50.00
Baltimore, Md.....	1.00
San Antonio.....	332.00
San Antonio.....	332.50
Denver, Colo., general hospital.....	249.96
Lawton, Okla.....	297.50
Columbus, Ga.....	510.00
Total.....	11,863.00

The above list is incomplete because there are not sufficient employees to obtain all the required data in the time available. This is true because leases are not made in this office according to appropriations but according to locality, and hence it requires considerable time to compile such a list. The balance of the amount estimated made up of small items similar to the majority of those listed above.

DISPOSITION OF ABANDONED HOSPITAL PROPERTY.

I would like to ask Maj. Kramer what disposition is made of hospital property after the hospital is vacated by the Medical Department—these general hospitals? I suppose they are turned over to the Public Health Service.

Maj. KRAMER. They are disposed of either by storage or by sale or transfer or by the salvage service, I believe.

Mr. ANTHONY. The salvage service, the purchase, storage, and traffic division?

Maj. KRAMER. It is an activity carried on under the office of the Quartermaster General. I think Gen. Carson could tell you more about that than I can.

Gen. CARSON. The salvage service is by the Quartermaster Corps. I think in some of those hospitals the legislation required or authorized the transfer of the entire equipment to the Public Health Service.

Maj. KRAMER. Yes, yes.

Mr. ANTHONY. That is what I want to get at; does the entire equipment go with them?

Maj. KRAMER. Yes.

Mr. ANTHONY. And the hospital supplies?

Gen. CARSON. Yes; I think so.

Maj. KRAMER. But there is certain property to be disposed of that the Public Health Service has not asked for.

Gen. CARSON. Then whatever equipment was asked for was turned over to them at all these places.

CONSTRUCTION AT LETTERMAN AND WALTER REED GENERAL HOSPITALS.

Mr. ANTHONY. General, a while ago you stated that the sum of \$594,900 had been used for new construction at the Letterman General Hospital and at the Walter Reed General Hospital; how much of this new construction was done at each of these places?

Gen. CARSON. \$94,900 is the amount being spent at the Letterman General Hospital in San Francisco replacing temporary wards by fireproof reinforced concrete structures, and the betterment of the general hospital; \$500,000 is the amount appropriated for Walter Reed General Hospital. None of that has been actually spent yet; we are working on the plans for that now.

Mr. ANTHONY. But the improvements are being made out at San Francisco?

Gen. CARSON. Yes, sir; I think we have made the awards there.

Col. BROOKE. I would like to say regarding the \$500,000 while it is at Walter Reed Hospital it is not for the Hospital, *per se*, but for the Army Medical School.

Mr. ANTHONY. For what?

Col. BROOKE. For the Army Medical School.

Mr. ANTHONY. Gen. Carson, you are asking for a proviso at the end of this paragraph that not to exceed \$65,000 may be used in the completion of the hospital at Camp Knox, Ky?

Gen. CARSON. That particular proviso is unnecessary now.

Mr. ANTHONY. Why?

Gen. CARSON. Because it has been otherwise taken care of.

Mr. ANTHONY. Where is it taken care of?

Gen. CARSON. That is not taken care of in this bill.

Lieut. BRILL. It was included in the \$50,000,000 that we requested under the sundry civil bill.

Gen. CARSON. And this amount was cut out.

Lieut. BRILL. Cut out from here and was included under the other appropriation.

Mr. ANTHONY. So that item is taken care of in the other appropriation bill?

Gen. LORD. That was the estimate on which we got less than 8 mills on the estimate submitted, 8 mills on the dollar.

PROVISION FOR COST OF PERMANENT BUILDING FOR HOSPITAL.

Gen. CARSON. We are also asking to have attached to this section a provision as follows:

Provided further, That no permanent building shall be erected for use as a hospital the cost of which shall exceed \$50,000, except by special authority of Congress.

Mr. DENT. You want to increase it from \$20,000 to \$50,000?

Gen. CARSON. I think the limit now is \$40,000.

Mr. DENT. \$30,000.

Gen. CARSON. We can not do anything with that, so we ask to have the limitation made \$50,000.

Mr. DENT. It used to be \$20,000.

Gen. CARSON. That increase in limitation applies only to this bill. I mean it is not permanent; it is temporary until we can get through this H. C. L. feature.

Mr. DENT. That is caused by the increase in the cost of construction!

Gen. CARSON. Yes.

Mr. DENT. The same reasons as for the increase of the limit on—

Gen. CARSON (interposing). Officers' quarters.

Mr. DENT. It has not got the word "hereafter" in there.

Gen. CARSON. No, sir.

QUARTERS FOR HOSPITAL STEWARDS.

Mr. ANTHONY. The next item is quarters for hospital stewards. You are asking for \$23,000 in this bill, and you had \$20,000 during the current year. Did you expend that?

Gen. CARSON. It will be expended. It is pretty nearly gone now.

Lieut. BRILL. \$16,729 has been allotted up to December 31.

Mr. ANTHONY. Is this to be expended for maintenance or new construction?

Gen. CARSON. Maintenance and repair only.

Mr. ANTHONY. No new construction?

Gen. CARSON. No, sir.

Mr. ANTHONY. It is a necessary expense that you can not get away from?

Gen. CARSON. Yes.

Quarters for hospital stewards.

Item No. 0606.115. Maintenance and repair of quarters for hospital stewards at military posts, already established and occupied:

Apportioned fiscal year 1921 for 175,000 men—

Amount.....	\$20,000
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Per capita.....	
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Estimated fiscal year 1922 for 150,000 men—

Amount.....	23,000
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Per capita.....	
-----------------	--

Estimated fiscal year 1922 for 175,000 men—

Amount.....	23,000
-------------	--------

Per capita.....	
-----------------	--

Estimated fiscal year 1922 for 280,000 men—

Amount.....	23,000
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Per capita.....	
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Mr. ANTHONY. What item do you want us to take up next to Lord?

Gen. LORD. Shooting galleries and ranges, on page 70.

SHOOTING GALLERIES AND RANGES.

Mr. ANTHONY. For shooting galleries and ranges you are asking for \$65,000 for the next fiscal year, based on an estimate of 175,000 men. There were appropriated for the current year \$50,000. How much was expended?

Lieut. BRILL. On December 31 there had been allotted \$25,700 for maintenance and repair, and approximately \$2,500 for rent.

Gen. CARSON. The great demand on that really comes in the spring when they ask for money to put their ranges in shape for the season's work.

Mr. ANTHONY. So you will use the entire \$50,000 ?

Gen. CARSON. Undoubtedly. We ask for an increase of \$12,500 in the maintenance and repair item. The same reasons apply to that as to the others, the increase in the cost of labor. That is labor principally. Also under this item we will take up the repair and maintenance of ranges at the Air Service stations, which we never had before. In these various appropriations there are increases, because we have been told to hereafter carry on——

Mr. ANTHONY. Is there anything in this paragraph that covers the maintenance of ranges at Camp Perry, Ohio, where your national matches are held, or is this all for shooting galleries and ranges for the regular service organization ?

Gen. CARSON. Only for the regular service.

Lieut. BRILL. The civilian shooting galleries and ranges, I think, is a separate item.

Mr. DENT. It usually is. I have not noticed it in this bill.

Gen. LORD. Mr. Chairman, in line with your question, may I insert in the record that the policy of the War Department relative to these camps, as presented by the Secretary of War, will be found on page 910 of the hearings on the sundry civil appropriation bill for the year 1922.

Shooting galleries and ranges.

Item No.	Name of item.	Apportioned fiscal year 1921 for 175,000 men.		Estimated fiscal year 1922 for 150,000 men.		Estimated fiscal year 1922 for 175,000 men.		Estimated fiscal year 1922 for 280,000 men.	
		Amount.	Per capita.	Amount.	Per capita.	Amount.	Per capita.	Amount.	Per capita.
0409.116	Rentals of ground for shooting galleries and ranges.....			\$2,500.00	\$0.016	\$2,500.00	\$0.0142	\$2,500.00	\$0.009
0509.116	Shooting galleries and grounds, ranges, for target practice, operation maintenance and repair of.....	\$50,000.00	\$0.285	62,500.00	.416	62,500.00	.357	62,500.00	.223
	Total.....	50,000.00	.285	65,000.00	.433	65,000.00	.371	65,000.00	.232

RENT OF BUILDINGS, QUARTERMASTER CORPS.

Mr. ANTHONY. For rent of buildings and parts of buildings in the District of Columbia for military purposes during the fiscal year 1922, you are asking for \$202,000. There was appropriated \$200,000 for the current year. How much of that money has been allotted, and how much has been expended ?

Rent of buildings, Quartermaster Corps.

Item No. 410.118. Rent of buildings in the District of Columbia:	
Apportioned fiscal year 1921 for 175,000 men—	
Amount.....	\$200,000.00
Per capita.....	1.14
Estimated fiscal year 1922 for 150,000 men—	
Amount.....	202,000.00
Per capita.....	1.346
Estimated fiscal year 1922 for 175,000 men—	
Amount.....	202,000.00
Per capita.....	1.154
Estimated fiscal year 1922 for 280,000 men—	
Amount.....	202,000.00
Per capita.....	.75

Lieut. BRILL. Up to December 31 there had been \$187,770.96 allotted, covering rentals and leases for buildings.

Mr. ANTHONY. Will that carry you through the whole of the present year?

Lieut. BRILL. No, sir; I do not think so, at least. I think there are two cases that are still under discussion. In one the owner raised his demands so greatly that we have not been able to reach any agreement with him as to how much we are going to pay him.

Mr. ANTHONY. I wish you would insert in the record, General, a list of the buildings which are rented for military purposes in the District of Columbia, their location, and the amount you pay for each.

Have you carefully gone over this list of buildings to see that they are all necessary for use during the next fiscal year?

Gen. CARSON. They are all necessary for the next fiscal year. Some of them have been eliminated this current year; quite a material reduction has been made.

Mr. DENT. It would be a good idea to put in the record the number eliminated.

The following buildings rented in the District of Columbia have been or will be given up during the fiscal year 1921:

No. 1702-1704 F Street NW., per year.....	\$3,000
Warehouse, Fourth Street and South Avenue NE., per year.....	24,000

NOTE.—This warehouse has been rented only for the first six months fiscal year 1921 and therefore the saving by eliminating it for fiscal year 1922 is only \$12,080 instead of the entire annual rental.

Rental on storehouse No. 5, No. 21 M Street NW., has been increased by the owner to 17 cents per square foot for the current year and for fiscal year 1922. Because of this increase the estimate under this appropriation, fiscal year 1922, is not reduced by the total rental of the two buildings being given up.

Rental requirements, fiscal year 1922.

Purpose for which required.	Address.	Yearly rental.
Corral for quartermaster stables.....	Lots 15-21, inclusive, square 128.....	\$400.00
Salesroom branch and storehouse No. 12.....	First and Second and B Streets NW.....	12,000.00
Storehouse No. 10.....	First and K Streets NE.....	22,000.00
Storehouse No. 11.....	Fifth and Sixth floor, 613 G Street NW.....	5,000.00
Army Medical School and Hospital.....	472 Louisiana Avenue NW.....	1,000.00
Office and dispensary, Medical Corps.....	1106 Connecticut Avenue NW.....	7,000.00
Office depot quartermaster ¹	1702-1704 F Street NW.....	3,000.00
Signal Corps Laboratory.....	1710 Pennsylvania Avenue NW.....	1,000.00
Army Medical School.....	462-464 Louisiana Avenue NW.....	15,000.00
Do.....	458 Louisiana Avenue NW.....	2,000.00
Garage.....	Between First and Second, facing Q Street NW.....	7,000.00
Medical Corps warehouse.....	Lots 18-23, inclusive, square 673.....	9,000.00
Stables.....	Rear 1131 Nineteenth Street NW.....	1,000.00
Garage and warehouse.....	Rear 141, 205, 211 Q Street NW.....	1,000.00
Stables No. 1.....	Nineteenth Street and Virginia Avenue NW.....	4,000.00
Garage, stable, and warehouse.....	236-238 Nineteenth Street NW.....	1,000.00
Storehouse No. 2.....	1514 Eckington Place NE.....	7,000.00
Zone Finance Office.....	Lemon Building, 1729 New York Avenue NW.....	7,000.00
Office depot quartermaster.....	532 Seventeenth Street NW.....	1,000.00
Storehouse No. 5 ²	21 M Street NE.....	2,000.00
Total.....		187,770.96

¹ To be evacuated June 30, 1921. Not included in grand total.
² Lease for fiscal year 1921 has not been executed. Estimate based on 61,252 square feet, at 17 cents per foot, the price demanded by owner for fiscal year 1921.

Mr. ANTHONY. Yes. Why are you asking for as much money, then?

Gen. CARSON. It is not necessary. I can cut off \$2,000 anyhow.

Gen. ROGERS. We have just given up one anyhow. An engineer depot has been given up here in the city of Washington.

Mr. ANTHONY. Gen. Rogers, before the war we used to expend for this purpose \$45,000 a year. Are these buildings that are rented in the District of Columbia for military purposes used for military activities, or mostly for storage?

Gen. ROGERS. For both. Gen. Carson can give you a better idea of that than I can. For instance, one is used for a garage, one or two may be used as stables, and the depot quartermaster rents an office building right alongside of the War Department there.

Gen. CARSON. I can briefly go over the list, if that will help you.

Mr. ANTHONY. No; I want to get the general nature of the buildings.

Gen. ROGERS. I have taken up the question of trying to have some place in Washington where we could have all of our Army activities combined, if Congress ever has money enough to give us the money to concentrate and have them all in one place. At the present time they are pretty well scattered all over the city. We have a storehouse away out in Eckington, and warehouses in different parts of the city.

Mr. ANTHONY. Take the buildings that you are renting for transportation purposes. What used to cost the most, General, the rental of buildings when we used to use horses for transportation here in Washington, or the rental of buildings now that you are asking for automobiles that are used for transportation purposes?

Gen. ROGERS. I do not think I can answer that definitely. We are using a great deal more transportation at the present time than we were four or five years ago, and naturally the motor transportation is costing a good deal more now than the animal transportation facilities cost at that time.

Mr. ANTHONY. Well, you are maintaining both motor and animal transportation for official use in Washington, are you not?

Gen. ROGERS. Yes, sir.

Mr. ANTHONY. Would there be any economy in providing the one or the other?

Gen. ROGERS. Personally, I would be in favor of doing away with all animal transportation, and simply have accommodation for the officers' saddle horses. We are now renting a stable for that purpose, but, as I said before, I think the Government eventually should have its own facilities for everything practically in the city of Washington. You will always have to have these facilities under the depot quartermaster.

Mr. ANTHONY. Some officials at the War Department are given the use of a carriage and horses, and other officials there have an automobile allotted to them. Which costs the most to the Government to maintain for a year, a carriage, team, and driver, or an automobile?

Gen. ROGERS. I would have to have that investigated, Mr. Chairman. I could not tell you, but I think, as a whole, it would be economy for the Government to do away with the animal transportation except to provide for the saddle horses.

Mr. ANTHONY. Well, I believe that is the last of the quartermaster items, unless you have something special you want to offer in addition to the record that has been made.

Gen. CARSON. That appropriation could be cut down to \$188,000.

Mr. ANTHONY. Will you remember, in going over the quartermaster items to give the figure to which you can reduce them? There may be some that we might not have asked you about specifically. If we have not asked you about them, do that anyhow.

Col. HANNAY. Mr. Chairman, I would like to insert in the record not only what I said yesterday in regard to the increased activities now thrown on the Quartermaster Corps, due to the concentration of procurement, purchase, and storage, but, furthermore, to the increased activities thrown upon the Quartermaster Corps on account of the transfer of former ordnance activities to the Quartermaster Corps. So in comparing our activities with prewar conditions those things should be considered.

Mr. ANTHONY. I wish you would make as full a statement on that as you desire.

Col. HANNAY. Yes, sir.

STATEMENT SHOWING INCREASED ACTIVITIES OF THE QUARTERMASTER CORPS
COMPARED TO 1916.

1. Under the provisions of Supply Circular No. 48, Purchase, Storage and Traffic Division, General Staff, September 2, 1919, the computation of requirements, the purchase, production, inspection, the storage, and issue of the following supplies were transferred from the Ordnance Department to the Quartermaster Corps: Pack equipment; artillery and machine-gun harness; personal, horse, and mess equipment for officers and enlisted men; intrenching tools; fencing equipment; marksmanship insignia; marking outfits and stencils; blacksmiths', saddlers', and carpenters' tools; troop panniers with contents; bodies of equipment repair trucks or similar trucks; cleaning and preserving supplies, including all oils and paints; all spare parts and material necessary for the maintenance and repair of the above. The value of the supplies transferred was approximately \$50,000,000.

2. Section 9, act of June 4, 1920, charges the Quartermaster General, under the authority of the Secretary of War, with the purchase and procurement for the Army of all supplies of standard manufacture and of all supplies common to two or more branches; with the direction of all work pertaining to the construction, maintenance and repair of buildings, structures, and utilities, other than fortifications, connected with the Army; with the storage and issue of supplies; with the operation of utilities; with the acquisition of all real estate and the issue of licenses in connection with Government reservations; with the transportation of the Army by land and water, including the transportation of troops and supplies by mechanical or animal means; with the furnishing of means of transportation of all classes and kinds required by the Army; and with such other duties not otherwise assigned by law as the Secretary of War may prescribe.

3. The cost of procuring, storing, and issuing supplies for other bureaus is borne by the Quartermaster Corps. While in many cases other bureaus furnish funds to pay for supplies procured, they do not bear the overhead cost of procurement.

4. Until the latter part of the fiscal year 1916 there was no organized motor transport in the Army. At the beginning of the fiscal year 1916 there were 25 motor cars of some 26 makes, 90 motor trucks, of some 25 makes, and 35 motorcycles, or 125 motor vehicles, in use throughout the Army in the United States and its possessions. Practically no motor vehicles were purchased until March 11, 1916, when the punitive expedition into Mexico was organized. Between March 11 and June 30, 1916, there were purchased 75 motor cars, 661 motor trucks, 61 motorcycles, and 8 tractors, with incidental parts and equipment, at a cost of \$2,175,670. At the end of the fiscal year 1916 there were some 18 organized motor truck companies employing some 700 men, along the border and in Mexico.

The total motor vehicle equipment ordered or operated by the Quartermaster Corps, on dates specified below, was as follows:

Items.	June 30, 1916.	Jan. 10, 1921.
Passenger cars.....	110	4,489
Motor trucks.....	751	33,922
Motorcycles.....	96	10,505
Miscellaneous.....	8	19,146
Total.....	965	68,062

There was one small motor transport repair shop at Columbus, N. Mex., equipped with a small amount of machinery. This was practically the only establishment operated by the Quartermaster Corps for the repair of motor vehicles.

In order to operate and maintain the above vehicles, the Motor Transport Division, Transportation Service of the Quartermaster Corps, has motor transport establishments as follows:

- Camp Holabird, Baltimore, Md.: Repair shops, spare parts depot, training school.
- Camp Jesup, Atlanta, Ga.: Repair shops, spare parts depot, training school.
- Camp Normoyle, San Antonio, Tex.: Repair shop, spare parts depot, training school.
- Camp Boyd, El Paso, Tex.: Repair shops, spare parts depot, training school.
- Jeffersonville, Ind.: Repair shops, spare parts depot.
- San Francisco, Calif.: Repair shops, spare parts depot, training school.

5. The total number of boats of all classes operated in 1916 was 304. The total estimated number that will be in operation in 1922 is 517, an increase of 213.

The increases noted above are of small craft, and are due to the necessity of providing transportation for many new posts established on both coasts and the Gulf of Mexico as a result of the increased garrisons, as well as to provide for the additional requirements of the Coast Artillery Corps for target towing, vessels tracking, and other activities at the various coast-defense ports.

6. The Quartermaster Corps is called on to furnish transportation for personnel and supplies pertaining to the Tank Service, Chemical Warfare Service, and the Air Service which were not in existence in 1916. Also to furnish transportation for wives and dependent children of officers and certain enlisted men changing station.

7. The salvage operations are one of the very pronounced increased activities of the Quartermaster Corps since 1916, especially the operation of laundries and repair shops. While the salvage service is an asset of the Government, all funds received from its operations being deposited in the Treasury to the credit of miscellaneous receipts, the cost of operations, which is paid from funds appropriated, is shown as a liability.

8. Another increased activity over 1916 is the procurement, storage, and issue of recreational supplies, including athletic supplies, library supplies, cafeteria supplies, and theatrical supplies, and the procurement, storage, and issue of supplies for vocational training. Supplies and equipment for vocational-training purposes to the value of approximately \$45,000,000 have been transferred from other bureaus to the Quartermaster Corps for storage, care, and issue.

9. The value of the supplies stored and cared for by the Quartermaster Corps is approximately \$1,181,000,000. The storage, care, and disposition of surplus property is a very large increased activity which did not exist in 1916. Up to January 7, 1921, sales were made to the value of \$887,432,685.

10. Another increased activity is the supply of Reserve Officers' Training Corps units and the operation of Reserve Officers' Training Corps camps.

11. The Office of the Quartermaster General is charged with the construction for the entire Army, whereas prior to the war it handled construction for the Quartermaster Corps, including housing of troops, all other Staff Corps, and departments having had charge of their own construction. The principal increase in the amount of work of the construction service of the Quartermaster General's Office is due to the increase in the number of military posts and stations. The construction service now has charge of the maintenance and repair of buildings, structures, and systems and of the operation of all utilities at all the old Regular Army posts and stations which were in existence before the war and, in addition, the following: Nine divisional camps (National Army camps), 9 special camps, 9 Army supply bases and general supply depots, 50 miscellaneous stations on the Mexican border, 1 general hospital, 34 Air Service stations, 7 depots and terminals.

12. There has been a very large increase in the volume of work of the real estate division, due to the large number of properties now leased, as compared with the few before the war, the sale of surplus buildings and realty holdings, and the acquisition

of certain other properties, including a very large number of condemnation proceedings. In general, the volume of work now handled by the construction service of the Quartermaster Corps is approximately double the amount handled before the war.

OFFICE OF CHIEF OF FINANCE.

Allocation to the Quartermaster General of money appropriated for the support of the Army, for the fiscal year 1921, and balance still in reserve.

Appropriation title.	Amount appropriated.	How apportioned.		
		To Quartermaster General.	To other services.	Still in reserve.
General appropriations, Quartermaster Corps.....	\$133,000,000	\$123,100,000	\$2,100,000	\$7,796,000
Horses for Cavalry, Artillery, Engineers, etc.....	1,500,000	1,440,000		60,000
Barracks and quarters.....	8,500,000	8,000,000		500,000
Buildings, Infantry school, Camp Benning, Ga.....	1,000,000	1,000,000		
Barracks and quarters, Philippine Islands.....	300,000	275,000		25,000
Roads, walks, wharves, and drainage.....	3,000,000	2,925,000		75,000
Construction and repair of hospitals.....	1,000,000	960,000		40,000
Letterman General Hospital.....	94,900	94,900		
Walter Reed General Hospital.....	500,000	500,000		
Quarters for hospital stewards.....	20,000	20,000		
Shooting galleries and ranges.....	50,000	40,000		10,000
Land, Leon Springs Military Reservation.....	88,880	88,880		
Rent of buildings, Quartermaster Corps.....	200,000	200,000		
Inland and port storage and shipping facilities.....	100			
Quartermaster supplies, equipment, etc., Reserve Officer's Training Corps.....	3,000,000	2,850,000		150,000
Quartermaster supplies for military equipment of schools and colleges.....	100	100		
Repairing damaged road, Tenafly, N. J.....	5,200	5,200		
Total.....	152,259,180	141,505,680	2,100,000	8,653,500

¹ This amount, \$2,100,000, was apportioned as follows: Chief of Finance, \$2,042,000; Military Intelligence Division, \$58,000.

NOTE.—A general reserve is made by the Secretary of War from the major appropriations of the Army act for the purpose of covering unforeseen contingencies under the appropriations from which the reserve is maintained.

MONDAY, JANUARY 10, 1921

MILITARY POST EXCHANGES.

STATEMENT OF MAJ. JOHN N. GREELY, MAJOR, GENERAL STAFF, CHAIRMAN RECREATION COMMITTEE, EDUCATIONAL AND RECREATIONAL BRANCH, WAR PLANS DIVISION.

Mr. ANTHONY. Are you connected with the educational and vocational and recreational work primarily?

Maj. GREELY. I am connected with the recreational work.

Mr. ANTHONY. Recreational work alone?

Maj. GREELY. Yes, sir.

Mr. ANTHONY. I see you are asking for \$833,000.

Maj. GREELY. Yes, sir.

Mr. ANTHONY. The bill for the current fiscal year contained an appropriation for \$500,000 for military post exchanges. Can you tell us how much money was allotted to you during the current year for this purpose; and how much has actually been expended up to date?

Maj. GREELY. Yes, sir; \$500,000 was allotted for military post exchanges; \$450,000 was turned over to my branch to spend; and an item of \$50,000 was held out until the final quarter as part of the general reserve.

RECEIPTS FROM MOTION PICTURES, SHOWS, AND OTHER SOURCES.

Mr. ANTHONY. You are going to be able to go through the year, then, on that appropriation?

Maj. GREELY. In addition to that, sir, we have spent nonappropriated money which was made available——

Mr. ANTHONY (interposing). From what source?

Maj. GREELY. It was made available——

Mr. ANTHONY. From what source and how much?

Maj. GREELY. There was made available from other funds: From disbanded organizations, \$1,083,845.73; "smileage" fund, proceeds from the operation of the "smileage," campaign authorized by the Secretary of War, \$294,935.06; motion-picture fund, box-office receipts for motion-picture performances, \$31,395.84.

Mr. ANTHONY. Do you charge admission to motion-picture shows in the Army?

Maj. GREELY. Yes, sir.

Mr. ANTHONY. At all of the nine posts?

Maj. GREELY. Yes, sir.

Mr. ANTHONY. You do not furnish motion pictures free to the men, then.

Maj. GREELY. No, sir.

Mr. ANTHONY. What admission do you charge?

Maj. GREELY. The admission has been 10 cents, but is in process of being raised to 15 cents.

Mr. ANTHONY. And \$30,000 was all that you realized during the past year from that source?

Maj. GREELY. No, sir; these were funds which were turned over to the recreation department.

Mr. ANTHONY. What becomes of the money that you receive for admission to motion-picture shows?

Maj. GREELY. It goes back into the motion-picture bureau, which is not yet self-supporting.

Mr. ANTHONY. The motion-picture bureau is a part of your activity?

Maj. GREELY. Yes.

Mr. ANTHONY. Could you give us an idea of what the extent of these operations are—how much you expended for moving pictures, and how much you took in?

Maj. GREELY. No, sir; I can get that, but I have not got it at present. That is a part of the operations of this great recreational activity.

Mr. ANTHONY. The pictures are provided for out of this appropriation?

Maj. GREELY. No, sir.

Mr. ANTHONY. You can use it for that purpose?

Maj. GREELY. Yes, sir; we can use it for that purpose.

Mr. ANTHONY. Well, now, did you spend all the money you say you received from these other sources?

Maj. GREELY. No, sir; not all of it has been spent as yet.

Mr. ANTHONY. How much of it is still unspent?

Maj. GREELY. All of it has been expended or obligated with the exception of \$189,265.

Mr. ANTHONY. For what purposes did you expend it?

Maj. GREELY. Replacement of unit athletic boxes—athletic material—\$105,000. Purchase of motion-picture projectors, lamps, etc.

all moving-picture material, \$10,000. Purchase of dramatic supplies, \$2,000. Purchase of books for libraries other than textbooks, \$50,000. Purchase of stationery for service clubs, \$5,000. Construction purposes—it was made available to the Quartermaster General, who allotted it to various posts—\$50,000. And then there was allotted for general purposes to the various departments which were then in existence: Northeastern Department, \$25,000; Eastern Department, \$42,000; Southeastern Department, \$31,000; Central Department, \$35,000; Southern Department, \$39,000; Western Department, \$31,000; Headquarters Department, \$25,000.

Mr. ANTHONY. Do you contemplate the receipt of any funds during the next fiscal year from outside sources?

Maj. GREELY. No, sir.

Mr. ANTHONY. Therefore, you will be dependent entirely upon this appropriation for these recreational activities?

Maj. GREELY. Yes, sir.

Mr. ANTHONY. You say you received over a million dollars from the funds of disbanded organizations?

Maj. GREELY. Yes, sir.

Mr. ANTHONY. Those were funds that were received at different camps during the war for recreational purposes?

Maj. GREELY. I can not trace the funds entirely.

Mr. ANTHONY. Yes.

Maj. GREELY. They undoubtedly are part of them.

Mr. ANTHONY. For instance, at some of the large camps there were commercial activities carried on.

Maj. GREELY. Yes, sir.

Mr. ANTHONY. Stores and so forth.

Maj. GREELY. Yes, sir.

Mr. ANTHONY. Permits were given to civilians to conduct stores and amusement enterprises; and in those contracts there is a provision that a certain percentage of their receipts should go into a fund for recreational activities.

Maj. GREELY. Yes, sir.

Mr. ANTHONY. Or something of that kind?

Maj. GREELY. Yes, sir.

Mr. ANTHONY. That is the money of which you speak?

Maj. GREELY. That is the money; at least that is part of the money. There was more of this money. Much of it was held, I believe, to meet the debts of these disbanded organizations. This amount of what was left was turned in for recreational purposes to continue the work that the welfare organizations had been doing.

Mr. ANTHONY. Was all that money turned over to this permanent fund, or did some of the organizations take it with them when they disbanded?

Maj. GREELY. I believe—I can not speak with authority on that—I believe that none of the organizations took any funds with them when they disbanded.

Mr. ANTHONY. Left it for the use of the regular establishment?

Maj. GREELY. Yes, sir.

Gen. LORD. Included in that is what was left of the post exchange fund of the disbanded organizations.

Mr. ANTHONY. Why do you ask for more money, \$333,000 more money for the next fiscal year than you had for the present year?

Maj. GREELY. To enable the carrying out in some degree of the recreational activities to which we are now committed and which we believe are certainly desirable things to have.

Mr. ANTHONY. You based your estimate on an Army of 280,000 men the same as the other estimates have been based upon?

Maj. GREELY. Actually, the figures we arrived at—in our original estimate we asked for more than \$833,000.

Gen. LORD. The original estimate, Mr. Chairman, was \$3,863,063.

Maj. GREELY. This was cut by the War Department to \$833,000; that was the amount that was asked for the preceding years. We made what readjustment we could, cutting down personnel, construction, and making all the cuts that we could to get it down to this figure of \$833,000.

CIVILIAN PERSONNEL.

Mr. ANTHONY. How much civilian personnel do you contemplate employing under your program for the next year; and how much money are you going to use for that purpose?

Maj. GREELY. Corps area and department librarians at the rate of \$3,000, 12. Camp and hospital librarians at the rate of \$1,800, 26; at the rate of \$1,500, 6. Corps area and department supervisors of women's relations, at the rate of \$2,400, 12.

Mr. ANTHONY. What kind of work is that?

Maj. GREELY. These are women who are charged with the supervision of the work of hostesses throughout the Army; and in addition, being stationed at Corps headquarters, they have to do——

Mr. ANTHONY (interposing). That is a continuation of the hostess system which was inaugurated during the war?

Maj. GREELY. Yes, sir.

Mr. ANTHONY. At your principle centers?

Maj. GREELY. Yes, sir. Hostesses, at \$1,800, 38. Hostesses, at \$1,500, 76. Probationary hostesses, at \$1,200, 20. That is all the salaries for civilian personnel.

Mr. ANTHONY. Now, if the regular army got along without hostesses before the war, why could not you get along without them now that we are on a peace basis.

Maj. GREELY. We could, but the Army has changed in character somewhat. The personnel, the enlisted personnel, is, I believe, rather younger and it is—well, the whole character of the service is changed somewhat, so that the enlisted personnel of the Army has more relations with the women of the country than it used to have.

Mr. SLEMP. What does that total of salaries amount to?

Maj. GREELY. I will just have a total it up for you, sir; it will take me but a moment. [After figuring.] It is \$327,000.

Mr. SLEMP. Leaving about \$500,000 to be expended otherwise?

Maj. GREELY. Yes, sir.

Mr. SLEMP. Now, what is your explanation of that \$500,000 item?

Maj. GREELY. Construction and repair, \$100,000.

We had projects which we had hoped to construct, such as a Liberty Theater at Camp Knox, a recreation building at Letterman General Hospital, each of which was about \$100,000. We had very large estimates for construction; but due to this cut within the War Department, we felt that we could not do any new construction at all.

Mr. ANTHONY. The completion of these projects is embraced in your program; is it?

Maj. GREELY. No, sir; it is not. We can not build them with the funds for which we are asking.

NEW CONSTRUCTION.

Mr. ANTHONY. There is no authority in here for new construction. is there?

Maj. GREELY. Now, let me see——

Mr. ANTHONY (interposing). Yes; for "Continuing the construction of suitable buildings"——

Maj. GREELY. Yes, sir.

Mr. ANTHONY. Now, do you plan to use any of these funds for the completion of the theater at Camp Knox?

Maj. GREELY. Probably not; that is too large an item. I mean that one thing would take up all that we are asking for for the entire Army, so that all we can possibly do with that \$100,000 is merely to make small repairs and construction to keep existing facilities alive.

Mr. SLEMP. That gets you to something over \$400,000, but you still have \$400,000.

Maj. GREELY. Equipment and supplies for service clubs, \$40,000.

For motion-picture service, for purchase of machines, \$35,000.

For libraries, books and magazines, \$140,000.

For athletics, \$100,000.

For the rental of films and repairs to motion-picture outfits, \$75,000.

ATHLETIC EQUIPMENT.

Mr. ANTHONY. Does your \$100,000 for athletics contemplate the hire of any athletic instructors?

Maj. GREELY. No, sir.

Mr. SLEMP. How do you spend that money?

Maj. GREELY. That will be expended in keeping up these unit equipment boxes which have already been purchased and distributed to the service. They consist of such equipment as boxing gloves and footballs, and we want to keep those up as much as possible. We can not do much, naturally, with this \$100,000, toward keeping them up. Also we would like to have construction of fields—athletic fields. We had a great deal of difficulty in making this detailed statement up to find any money for athletics at all; but we felt that athletics was the most popular recreation in the Army, and that it should be given some encouragement from the War Department; since it had been given so much during the war by the welfare societies. Consequently, we just set aside \$100,000 for that and have taken it away from other activities.

CIVILIAN RECREATIONAL ACTIVITIES.

Mr. ANTHONY. Major, during the war a greater part of the recreational activities were carried on by other organizations, were they not?

Maj. GREELY. Yes, sir.

Mr. ANTHONY. You say they were?

Maj. GREELY. Yes, sir.

Mr. ANTHONY. Is any of that work being continued by these organizations?

Maj. GREELY. Only in Germany; the American forces in Germany still have their welfare activities looked after by the civilian societies.

Mr. ANTHONY. What ones are operating there?

Maj. GREELY. Well, all of them, I think, with the exception of the American Library Association, which told us that due to the fact that their funds were very low, they would have to stop operations the first of the year. Consequently, they turned over their plant with all the books and magazines that they had to the Commanding General in Germany, who utilized the other welfare societies to carry on their work. But everywhere else in the United States, and subsequently in the foreign departments—that is, Hawaii and the Philippines and Panama Canal Zone—we have taken over in some measure the work of these welfare societies.

Mr. ANTHONY. Are the Y. M. C. A. and the Knights of Columbus doing any work on military reservations in this country at the present time?

Maj. GREELY. They are, to a certain extent.

Mr. ANTHONY. What are they doing?

Maj. GREELY. There are 10 posts at which the Y. M. C. A. was authorized to maintain a motion-picture service and various "Y" activities before the war; they are still maintained at these 10 posts, most of which are in the vicinity of New York, although one of these posts is in San Francisco.

PURCHASE OF BOOKS AND MAGAZINES.

Mr. SLEMP. Do you not think you have a rather large proportion of this money to be given to books and magazines in view of the fact that you ought to have a tremendous amount of books now?

Maj. GREELY. I thought so myself, sir; and in making up that estimate I would have made it considerably smaller and put it into other work, but men who have been working on it longer than I have felt that the books were something that had to be encouraged. The libraries have a present stock of books, but they say, and I believe, that a library, to be a living thing, has to have a certain amount of renewal, and that if a library does not get in a certain proportion of new books, it falls into disrepair. This is a rather small item: \$40,000, for instance, out of \$146,000, is going for magazines which we are subscribing to at the present time.

MOTION-PICTURE SHOWS.

Mr. ANTHONY. Major, you state you are charging an admission to the enlisted men at moving-picture shows at the different posts?

Maj. GREELY. Yes, sir.

Mr. ANTHONY. During the war those entertainments were free, were they not?

Maj. GREELY. I believe they were, sir.

Mr. ANTHONY. Why would it not be a good plan to continue having them free?

Maj. GREELY. They come into a certain amount of competition, I suppose, with civilian agencies which would object to this, and I think that everybody in the service feels that they would rather pay in part for their amusements, especially when they can get a better class of amusements.

Mr. ANTHONY. Well, now then, in military post exchanges are you as solicitous about coming into conflict with civilian activities?

Maj. GREELY. Yes, sir.

Mr. ANTHONY. As you are in the moving-picture business?

Maj. GREELY. Yes, sir; we try to be.

POST-EXCHANGE STORES.

Mr. ANTHONY. For instance, all these military post exchanges at the different posts are really small department stores, are they not?

Maj. GREELY. Yes, sir.

Mr. ANTHONY. That are conducted by the Army?

Maj. GREELY. Yes, sir.

Mr. ANTHONY. In which may be bought almost anything that an officer or soldier might want to have?

Maj. GREELY. Yes, sir.

Mr. ANTHONY. And is there any consideration in there whatever for competition with civilian activities?

Maj. GREELY. There is some. I know, for instance, that they discourage civilians buying at post exchanges. I remember that that has come up at various times, civilians wanting to buy at Army post exchanges.

Mr. ANTHONY. As I understand it, the establishment of a post exchange grew out of the fact that some of the frontier posts were located so far from any commercial center that it was practically impossible for an officer or soldier to buy the necessities they might desire, and the post exchange was established to afford them that convenience.

Maj. GREELY. Yes, sir.

Mr. ANTHONY. But we have grown out of that situation and our posts are all located--most of them at any rate--near cities where every opportunity to purchase merchandise is offered. The Government's activity in this regard is attacked by civilians, who are engaged in commercial enterprises near these places, with the statements that the Government has no expense for rent, pays nothing for light, gets most of the labor for nothing and sells in competition with them. Do you think it is a fair proposition?

Maj. GREELY. I suppose there is bound to be a certain element of competition enter into it. If a man at Camp Lewis, Wash., had no exchange to buy from, he, naturally, would be forced to go to Tacoma, which is some 20 miles away, and buy. But it does not enter into direct competition there, because he would have to go quite a long ways to make his purchase. It would seem as though he ought to have a store conducted by himself in a way.

Mr. ANTHONY. Where, and how, do you purchase merchandise that is sold in these stores?

Maj. GREELY. That is purchased locally.

Mr. ANTHONY. Wherever possible you purchase it locally?

Maj. GREELY. Yes, sir.

Mr. ANTHONY. Do you also have a mail-order business in connection with these post exchanges?

Maj. GREELY. No, sir.

Mr. ANTHONY. Say, when you get an order for something you do not carry in stock do you send away and get it for the man who wants to purchase it?

Maj. GREELY. A local post exchange may do that; I do not know; I know nothing that would restrict them from doing it. There was recently made a proposition to make a sort of chain of stores out of the post exchanges: however, that was disapproved.

Mr. ANTHONY. What was that proposition; to turn them over to some company to operate?

Maj. GREELY. No, sir; but to have them operated from the War Department with a central administration, turning their proceeds into the War Department and having all purchases made centrally. That was disapproved as taking away the elasticity which was required for the post exchange.

Mr. ANTHONY. Now, do the profits from the operation of the stores at these post exchanges go into the various company organizations in the posts, or do they go directly into your fund?

Maj. GREELY. No, sir; they do not go into our fund at all. They are post affairs, and a certain proportion of the profits is devoted first to the bands; what remains is devoted to various athletic activities that can not be handled from appropriated funds, such as buying prizes, or something of that sort for athletic meets; and the rest of it is turned over to various organizations which run those exchanges—generally to improve their messes.

Mr. ANTHONY. Have you any statement that will show the amount of money that accrues as profits from the operation of the post exchanges?

Maj. GREELY. No, sir. During the past year a careful study of the whole post exchange situation was made with a view to putting into operation this chain store proposition, but even this board, which has been working over a period of a year, has not complete data, I believe, as to the profits of all post exchanges—they are local affairs.

Mr. ANTHONY. I wonder if you could take a representative post exchange, a typical one, and make a statement of its operations for the record, showing the amount of goods handled, and the profits, if any, and then also give the figures as to what should be charged against that institution as costs, figuring not only the actual money paid out for costs, but the estimated amounts proper for light, labor, and those other things, which are really furnished out of other appropriations in this bill. Could you do that?

Maj. GREELY. I think that could be obtained for you; but I could not do it myself because I have none of the facilities.

Mr. ANTHONY. I realize that; I mean, could you get it for us without too much trouble?

Maj. GREELY. Yes, sir

The specific information desired by Mr. Anthony is not available in the War Department, nor can it be secured within a reasonable time. It depends entirely on local conditions, and can only be secured locally for each individual exchange. There is, however, available within the War Department, a careful statistical study, made April 2, 1920, by D. W. Springer (certified public accountant, secretary Michigan State Board of Accountancy), development expert, business department, Education Section. This study compares the financial status of post exchanges with that of British canteens and with that of various commercial chain store enterprises. It is believed that this study will give the information desired by the committee in a more satisfactory form than would a study of the financial status of any individual exchange, which must naturally be dependent on local conditions.

Statistical study.

[The following comparisons are as of Oct. 31, 1919, for the post exchange and as of Jan. 1, 1919, for the four companies named, except that the sales are for the year 1918 for the companies and for the year 1919 for the exchange. In the case of Great Britain the sales are for 1918, and the other figures are for Jan. 1, 1919, all reckoned, for convenience, on pound exchange value of \$5.]

	Post exchange (285 exchanges).	Navy and Army canteen, Great Britain (2,711 canteens).	Kresge Co. (170 stores).	United Drug Co. (199 stores).	United Cigar Stores Co. (1,242 stores).	Woolworth Co. (1,039 stores).
Fixed and funded assets.....	\$495,893.37	\$1,555,075.00	\$10,849,132.00	\$33,462,743.00	\$31,663,317.00	\$68,336,136.00
Current assets:						
Cash.....	1,510,153.68	1,039,400.00	503,097.00	1,232,717.00	2,984,944.00	1,259,721.00
Notes and ac- counts re- ceivable.....	¹ 800,326.45	15,092,950.00	220,306.00	4,500,691.00	1,341,645.00	503,871.00
Merchandise..	² 1,579,419.69	28,074,995.00	7,168,778.00	14,118,597.00	13,270,900.00	17,901,718.00
Miscellaneous.	167,164.99	9,410,965.00	1,411,129.00	110,983.00	.....	556,161.00
	4,057,064.81	53,618,310.00	9,303,310.00	19,962,988.00	17,597,489.00	20,221,471.00
Total assets.....	4,552,958.18	55,173,385.00	20,152,442.00	53,425,731.00	49,260,806.00	88,557,607.00
Capital liabilities..	3,440,491.36	10,795,780.00	16,091,115.00	45,727,980.00	40,616,425.00	86,135,000.00
Current liabilities..	1,112,466.82	44,377,605.00	4,061,327.00	7,697,751.00	8,644,381.00	2,421,607.00
Total liabilities..	4,552,958.18	55,173,385.00	20,152,442.00	53,425,731.00	49,260,806.00	88,557,607.00
Sales.....	³ 20,000,000.00	202,565,860.00	36,309,513.00	51,028,336.00	51,971,000.00	107,179,411.00
Working capital... ⁴	2,328,712.99	9,240,705.00	5,241,983.00	12,265,237.00	8,953,108.00	17,799,814.00
Per cent of work- ing capital to sales.....	⁵ 11.64	4.56	14.43	23.84	17.23	16.61
Per cent of cash balance to sales.	⁶ 7.5	.51	1.4	2.4	5.71	1.17
Per cent of cash balance to mer- chandise invoice	⁶ 129.8	3.7	7.0	9.17	22.5	1.0
Per cent of cash balance to cur- rent liabilities...	⁶ 135.8	2.3	12.4	16.0	34.5	1.4
Per cent of mer- chandise in- voiced to sales..	⁷ 5.8	13.8	19.7	27.7	25.5	1.7
Per cent of current assets to current liabilities.....	⁸ 309.00	120.00	229.00	259.00	203.00	81.0
Per cent of fixed assets to capital liabilities.....	⁹ 14.4	14.3	66.1	73.1	77.9	7.0

¹ There are items in the exchange figures totalling about \$200,000, the value of which can not be determined from reports.

² The exchange reports show dead stock on hand valued at nearly \$100,000. However, in figures in percentages, we have eliminated that item and discounted the inventory 20 per cent.

³ The sales figure for the exchange is estimated. Exact sales for the month of October, 1919, were not by specifically dictated reports. The weekly Army strength in 16 Army camps was secured for that month for the purpose of averaging the same and comparing it with the strength of Sept. 30 and Oct. 31. On that basis, we estimated the rate of demobilization during the month and applied it to the total for Oct. 31 for the purpose of estimating the average sales per man during the month. Assuming the rate of demobilization for the year was that obtained for October, we used the average sales figure in obtaining the sales figure which is given. The average sales per man for October (\$200,000,000 ÷ 1,000,000) if maintained, would regularly produce an annual business of approximately \$200,000,000 a year for the proposed Army. The sales of the commissary for 1918 were reported as \$12,000,000, and for 1919 as \$12,011,762.58.

⁴ The exchange working capital is given after deducting \$10,585 referred to in notes 1 and 2.

⁵ The working capital is sufficient to operate the business comfortably.

⁶ The ratio of cash balance to sales, as well as to merchandise inventory and current liabilities, is sufficient to permit the retirement of capital investment, cash payments for which were only \$86,170,000 as reported in the reports, without jeopardizing the business.

⁷ The ratio of inventory to sales, while lower than it probably would be under normal conditions, indicates that the business provides a rapid turnover.

⁸ Not only is the cash balance large compared with current liabilities but other current assets are also in a healthy condition.

⁹ The ratio of fixed assets to capital liabilities is small for both post exchange and the British exchange, differing by only 0.1 per cent, due to the fact that the Government in both cases furnishes buildings which the stores are operated in. If the companies with which comparisons are made can provide for their entire capital, with three-fourths of it in fixed assets, the exchanges can sell on a much larger margin and yet secure a profit which will furnish the organizations with needed funds.

Mr. ANTHONY. I have never seen anything of this kind and I would like to have it for the information it would give us.

Did you complete your itemization? We want those items, by the way, inserted in the record.

Maj. GREELY. Yes, sir; I can turn this whole statement over to the stenographer. Also I have prepared a short argument for the whole proposition.

Mr. ANTHONY. Well, we do not want all the arguments except in such cases as they may be necessary to explain the figures.

Maj. GREELY. Well, the general argument is merely that officers and soldiers are entitled to recreation and that unless they get it they grow stale and lose their efficiency.

Mr. ANTHONY. Is there any estimate made here, or any sort of expending any of this money for the hire of dramatic folks——

Maj. GREELY. No, sir.

Mr. ANTHONY. Or dramatic instructors?

Maj. GREELY. No, sir. That is something which we are doing at the present, but due to the cut in the estimates we had to drop it entirely.

EMPLOYMENT OF CIVILIANS—NEW LANGUAGE.

Mr. ANTHONY. You ask for language here for the employment of the civilian personnel necessary to carry on recreation "and for such other purposes." What is the idea of asking for the additional language? Does it mean that you want wide open authority to employ any civilian help necessary?

Maj. GREELY. Yes, sir. The actual reason for asking for that is so that we can employ these civilians, these cases I have already covered, whose employment has never been authorized from appropriated funds.

Mr. ANTHONY. Could this new language then; if you wanted to, empower you to hire a certain number of athletic instructors or dramatic instructors?

Maj. GREELY. Yes, sir.

Mr. ANTHONY. That is all, thank you, Major.

Maj. GREELY. Do you want this statement of the objects of the expenditures?

Mr. ANTHONY. Yes; we want that; we will insert it at this point.

ESTIMATE OF APPROPRIATION REQUIRED FOR MILITARY POST EXCHANGES FOR THE FISCAL YEAR ENDING JUNE 30, 1922.

For continuing the construction, equipment, and maintenance of suitable buildings at military posts and stations for the conduct of the post exchange, school, library, reading, lunch, amusement rooms, and gymnasium, including repairs to buildings erected at private cost, in the operation of the act approved May 31, 1902, for the rental of films, purchase of slides, supplies for and making repairs to moving-picture outfits and for similar and other recreational purposes at training and mobilization camps now established, or which may hereafter be established *for the employment of the civilian personnel necessary to carry on recreation and for such other purposes not enumerated above as the Secretary of War may deem advisable, to be expended in the direction of the Secretary of War, \$833,000.* [Words italicized are added to the wording of the current bill.]

Objects of expenditures.

	Rate.	Number.	Revised estimate.
1. Salaries:			
(a) Corps area and department librarians.....	\$3,000	12	\$36,000
(b) Camp and hospital librarians.....	{ 1,900	26	} 55,800
	1,500	6	
(c) Corps area and department supervisors of women's relations.....	2,400	12	28,800
(d) Hostesses.....	{ 1,800	38	} 182,400
	1,500	76	
(e) Hostesses, probationary.....	1,200	20	24,000
2. Construction and repair.....			101,000
3. Equipment and supplies:			
(a) Service clubs.....			40,000
(b) Motion picture service for purchase of machines.....			35,000
(c) Libraries, books, and magazines.....			144,000
(d) Athletics.....			100,000
4. Rental of films and repairs to motion picture outfits.....			75,000
5. Travel expenses, civilian employees.....			10,300
Total.....			832,000

GENERAL ARGUMENT FOR APPROPRIATION.

Officers and soldiers are entitled to recreation. Unless they get it they grow stale and lose their efficiency. New officers and men will not enter the Army unless they are given some opportunity to enjoy themselves, while those who are in it and are forced to stay for financial considerations for a term of enlistment or for some other consideration, will be dissatisfied and inefficient unless allowed a normal amount of recreation.

The normal American citizen gets his recreation in his home. If there are no recreational activities where he is, he is quite likely to move. The soldier, however has to stay where he is put. He can not, therefore, go in search of normal recreation. It must be brought to him. This was the reason, of course, for the enormous activities of the welfare societies in the camps during the war, to which we have fallen heir.

If the Army was stationed within towns, all that would be necessary would be to provide the soldiers with some sort of a home in which he could entertain friends whose hospitality he accepted, and to provide for athletics as a normal outlet for the exuberance of a young man and in order to promote esprit. However, conditions at present are not as simple. The Army is largely maintained in the old cantonments built during the war—great dismal expanses of wooden buildings which are falling into disrepair. It takes energy, organization, and money to provide proper recreation for officers and men under such circumstances.

DETAILED ARGUMENT FOR THE APPROPRIATION.

1. *Salaries.*—(a) Corps area and department librarians, 12, at \$3,000; total, \$36,000. To inspect and supervise the work of librarians in the field, competent librarians are required at corps area and department headquarters. These librarians should be men, as, in addition to caring for library activities, they will be required to perform many of the duties previously performed by supervisors of service clubs. Such supervisors are at present employed in promoting various recreational activities, such as service clubs and athletics, but funds for their employment for the next fiscal year are not requested. Their duties will fall largely upon commissioned and enlisted personnel, but some of their duties will best be performed by a civilian at corps area headquarters. The librarians must therefore be competent to do this work. It is believed that competent men can be secured for \$3,000.

(b) Camp and hospital librarians, 26 at \$1,800, 6 at \$1,500; total, \$55,800. Thanks to the activities of the welfare societies, there are now established at many barracks and camps large and valuable Army libraries. If kept up at some slight expense these libraries will furnish enjoyment to officers and enlisted men for years to come. If they are allowed to deteriorate, they will disappear as a recreational activity and an investment of millions of dollars will be thrown away. A library to have any value must actually reach the troops. This only occurs when it is properly maintained. At the present time the presence of civilian librarians is needed at large libraries, especially those in the hospitals, where this activity is one that causes a great deal of pleasure to the patient. The number of librarians for whom salaries are requested

only about three-quarters the number at present employed. The salaries of the librarians have also been reduced. It is believed that payment at the rate indicated will provide a proper wage in view of the downward tendencies of salaries and wages. These camp and hospital librarians should, in principle, be women, as their salaries can be made smaller, and as they can be utilized in promoting women's activities within the camp.

(c) Corps area and department supervisors of women's relations, 12 at \$2,400: total, \$28,800. The essential reason for the employment of all civilian personnel lies, of course, in the value that they have for soldiers in the field. However, it is evident that some hierarchy of command is necessary. If hostesses in the field are not inspected and supervised by competent women an inefficient hostess who has once gotten into the service is likely to stay forever, giving no value to the Government or proving a positive detriment. These supervisors are also invaluable at corps headquarters in solving problems which have to do with the increasingly close connection between the personnel of the Army and the women of the country.

(d) Hostesses, 38 at \$1,800, 76 at \$1,500; total, \$182,400. The employment of hostesses is a new thing in the Army and was born of the war. In the old Army whatever official relations an Army post maintained with neighboring civilian communities were handled by the wives of officers and enlisted men in so far as women's relations were concerned. This was generally satisfactory for the officers, but unsatisfactory for the enlisted men, who had little opportunity to meet a good class of girls on an equal footing and were driven to seek association with the lowest class. The soldier of to-day, like many of the officers, is a very young man, often in a formative age. It is believed that his character can be largely formed during a three-year enlistment in the Army. If his leisure time can be occupied in attending dances with nice girls, supervised by competent women, he will not only enjoy the Army more, but will go out of it a better man. The hostess or hostesses at each camp form a link between the soldier and the world outside so far as dancing, girls, and relations with women in general are concerned. This work is too heavy to be done by the wives of officers and enlisted men on the side. Under the present conditions of the Army the hostesses are actually needed, and if they can not be employed on account of lack of appropriations, the Army is going to lose in efficiency by the loss.

(e) Hostesses, probationary, 20 at \$1,200; total, \$24,000. This is the grade at which all hostesses are now initially employed. During their probation they attend training schools, where the inefficient are weeded out and from which the efficient are sent out capable of being of great assistance to commanding officers in caring for the welfare of their personnel.

2. Construction and repair, \$100,000. This very small item will permit of no new construction. Construction is badly needed in many places, but it is realized that economy is necessary this year. In consequence the item for construction is reduced to the above figure, which will serve only to provide for the most necessary repairs, without which the whole recreational plant in the field will fall into disrepair.

3. *Equipment and supplies.*—(a) Service clubs, \$40,000. The item of \$40,000 for service clubs falls into the same category as that requested for construction. The sum is not large enough to permit putting into effect any general system of equipping service clubs. However, it is essential to have some such small amount available for use in keeping up the present facilities and supplementing them in some degree.

(b) Motion-picture service for purchase of machines (see 4 below), \$35,000.

(c) Libraries, books, and magazines, \$146,000; \$40,000 of this amount is needed for the purchase of magazines. The rest of the amount is for the purchase of books and for the upkeep of old books. Some money must be spent on these items to keep the library freshened up and get full value out of it. The library which is not freshened up will not be used and the initial expenditure will be largely thrown away.

(d) Athletics, \$100,000. This item falls into the same category as that of service clubs above. The sum is not large enough to permit putting into effect any general system of building athletic fields, or equipping gymnasium or athletic teams. However, it is essential to have some such small amount available for use in keeping up the present facilities and supplementing them in some degree. In making available even small sums to the various corps areas for the purchase of athletic equipment, the War Department is in a position to obtain some discounts for purchases in bulk and secure more material for the same funds.

4. Rental of films and repairs to motion-picture outfits, \$75,000. The motion-picture service must practically support itself. The small funds asked for are to cover extraordinary expenses not properly chargeable to troops. While these expenses are placed under the item of "Rental of films," they are actually only for the rental of films in small posts which can not make the local motion-picture service self-supporting.

The War Department is able to give service to such small posts by adding, to the surplus earned by the larger posts, this comparatively small item. It is believed that in another fiscal year, the motion-picture service will be completely self-supporting. It is believed that motion picture shows constitute the greatest recreation of the American people. This applies to the Army as well and it is necessary for the Army posts to have their own shows as they are too far away from any neighboring town in most cases to conveniently attend the movies in town.

5. Travel expenses, civilian employees, \$10,000. This appropriation is absolutely necessary in case civilian personnel for recreational purposes is authorized. It must be spent to meet the expenses of the hostesses and librarians changing station on promotion or transfer and the travel expenses of the supervisor, corps librarians and corps supervisors of women's relations.

MONDAY, JANUARY 10, 1921.

STATEMENT OF BRIG. GEN. H. M. LORD, CHIEF OF FINANCE.

CLAIMS FOR DAMAGE TO AND LOSS OF PRIVATE PROPERTY.

Mr. ANTHONY. Gen. Lord, you are asking, under the head of "Claims for damages to and loss of private property," for an appropriation of \$100,000. We gave you \$40,000 for this purpose last year. Why will you need \$60,000 more?

Gen. LORD. That \$40,000 has been the regular appropriation, as I recall it, for several years. The present appropriation has all been utilized except \$3.93. There has been approved by the auditor, who makes settlement of these claims, and is now in the Treasury Department awaiting an appropriation approximately \$18,000; there is in the auditor's office claims approximating \$18,000; in the office of the Chief of Finance, in process, claims approximating \$150,000, so that there are \$186,000 worth of these claims in the Treasury Department awaiting appropriation for settlement, in the hands of the auditor being processed, and in the office of the Chief of Finance being processed.

Mr. ANTHONY. They are claims which, under the law, the War Department is authorized to settle?

Gen. LORD. The procedure is this. The claim is made and acted upon by some local board, a board of survey, and it comes to the office of the Chief of Finance where it is investigated. If it is a claim for damage by a truck or automobile it is referred to the Motor Transport Corps for recommendation, and when it comes back it is forwarded to the Secretary of War for his signature, for approval or disapproval or modification, and if it is approved it passes to the Auditor of the War Department for settlement. In all cases they go to the auditor for final settlement, and the auditor forwards them to the Treasury Department for the actual payment.

The current appropriation has been all exhausted, and, in addition to that, there are claims for approximately \$18,000 in the Treasury Department waiting for an appropriation. The large proportion of the increase in damage claims is due to automobile and truck accidents.

Mr. DENT. There is a limitation on the amount that may be paid on each individual claim you pass on, is there not, under this appropriation? What is it, \$5,000?

Gen. LORD. Not in the law. In the Air Service there is a limitation as to the amount that can be paid.

Mr. DENT. But is there not a limitation in the law on the amount that you may pay?

Gen. LORD. I think not.

Mr. DENT. My recollection of the law was that it was intended to settle only minor claims, to save the trouble of going to Congress.

Mr. ANTHONY. Are these all small claims?

Gen. LORD. They are small, most of them under \$100.

Mr. DENT. As a matter of practice, then, you only settle minor claims up to several hundred dollars?

Gen. LORD. Yes; we would not attempt to settle any large claims.

Mr. CRAMTON. Is there a different rule in the Air Service to what there is elsewhere?

Gen. LORD. The Air Service has a specific appropriation for the payment of claims for damages due to the operation of airplanes, and they also have the only authority which exists in the War Department—

Mr. CRAMTON. What about accidents due to the driving of motor trucks connected with the Air Service?

Gen. LORD. That is settled out of this appropriation.

Mr. CRAMTON. Why should I have one returned to me with the statement that it could not be given consideration except by Congress; that there was no authority for the settlement of those claims in the War Department?

Gen. LORD. Was it a personal-damage case?

Mr. CRAMTON. Yes.

Gen. LORD. The only authority which we have for the settlement of claims of that sort is in the case of personal damage by an airplane, and that is the only item in this bill to authorize the settlement of personal-damage cases. This item is only for the settlement for damage to property.

Mr. CRAMTON. I am glad to get that distinction.

Mr. ANTHONY. What redress has a man who receives a personal injury from an Army motor truck?

Gen. LORD. Sue the Government, or congressional relief. There is general law for the loss and damage to property of officers while engaged actively in saving Government property. That is what we call an indefinite appropriation law, in that it provides for payment when the claim has been properly adjudicated out of any funds not otherwise obligated or expended that are in the Treasury. There was an amendment to that law in 1918, and for some reason a specific appropriation of \$200,000 was made, but it was not needed. That \$200,000 is still on the books of the Treasury Department, without any account having been charged against it, because, under the regular order, as claims have been made and come through, they have been paid out of surplus funds in the Treasury and not from that appropriation. I wanted to ascertain whether or not that amount could not be made available to the amount that we ask for the settlement of these claims. I am somewhat in doubt whether it can be done.

Mr. ANTHONY. You say you have \$50,000 of such claims that have practically been passed upon and approved?

Gen. LORD. There are \$18,000 worth of claims in the Treasury, and approximately the same amount in the auditor's office, in process, but it takes a considerable time for them to get through.

Mr. ANTHONY. And you will require \$100,000 next year in order to pay them?

Gen. LORD. The amount of the old appropriation, \$40,000, will meet the claims now in the Treasury and in the hands of the auditor, and whatever you appropriate in addition to that will be immediately paid on additional claims as the auditor sends them through. It will take some little time to process them.

Mr. DENT. I want to ask you about another class of claims, for instance, for amounts which have been disallowed by the comptroller, for the expenses of an officer under orders, say, which amount has been disallowed, and he has been compelled to pay them himself, and other claims of that nature, a number of which you formerly sent to the Military Committee, and which I now understand are pending before the Court of Claims. Have any funds been allotted to the War Department for the payment of such claims that are a part of the accounts which should be settled?

Gen. LORD. They are all before the Committee on Claims of the House of Representatives, of which Mr. Edmunds is chairman, and last session I had a conference with Mr. Edmunds, hoping to get some action through the Committee on Claims.

Mr. ANTHONY. There are a certain class of claims where an officer who is responsible for public money or public property is checked up and found a few hundred dollars short, and has paid that money into your office, and subsequently you have found that he was not responsible for the item, or the item was found. What provision was made to take care of that officer?

Gen. LORD. Those claims are in the number that go to the Committee on Claims.

Mr. ANTHONY. It has always seemed to me that those accounts should be taken care of. It is rather unfair to let them drag along.

Gen. LORD. There are cases of great injustice in that list of claims.

Mr. ANTHONY. Could they be taken care of under this item?

Gen. LORD. They could not. There must be an act of Congress to pay them.

Mr. DENT. We used to put them in a special item in the bill, but the committee uniformly agreed that we had no jurisdiction.

Mr. ANTHONY. How many of those claims are there?

Gen. LORD. There must be 50 or 60 of them.

Mr. ANTHONY. I wish you would put in the record a list of the claims, with the total amount to be taken care of.

Gen. LORD. The total amount to be appropriated?

Mr. ANTHONY. Of those perfectly clear and uncontested claims that should be taken care of.

UNSATISFIED RELIEF CLAIMS.

Unsatisfied relief claims for certain officers of the Army and others, showing a list of claimants, alphabetically arranged and the procedure in each case, in so far as War Department records show (total number of claims, 141).

Total of claims requiring appropriations.....	\$22,000
Total of claims requiring no appropriations.....	50,000
Total of claims.....	\$72,000

History of relief measures for certain officers of the Army and others that are still pending:

S. 257, Sixty-sixth Congress: Introduced in Senate and referred to Committee on Claims, May 20, 1919; reported back to Senate, June 23, 1919; passed by Senate, July 21, 1919; introduced in House and referred to Committee on Claims, August 1, 1919.

H. R. 5219, Sixty-sixth Congress: Introduced in House and referred to Committee on Claims, June 7, 1919.

House Document No. 301, Sixty-sixth Congress: Referred to House Committee on Military Affairs, November 19, 1919; withdrawn from Committee on Military Affairs and referred to Committee on Claims, December 1, 1919.

Letter to the Speaker of the House of Representatives, inclosing draft of relief bill, March 19, 1920 (shown in column "Forwarded to Congress" in following table).

Letter to the Speaker of the House of Representatives, inclosing draft of relief bill, January 15, 1921 (shown in column "Forwarded to Congress" in following table).

Claims.

Name.	Rank.	Appropriation required.	No appropriation required.	Forwarded to Congress.	Senate bill.	House bill.
Averill, N. K.	Captain. ....	.....	\$39.23	.....	257	5219
Abbot, Frederick V.	Brigadier general. ....	.....	509.00	.....	257	.....
Asis, Paulina. ....	.....	\$2.53	.....	.....	257	5219
Alegre, Dionicia. ....	.....	11.33	.....	.....	257	5219
Aledo, Felipe. ....	.....	5.83	.....	.....	257	5219
Alhigbe, Benbinuto. ....	.....	86.33	.....	.....	257	5219
Alegro, Salas. ....	.....	30.67	.....	.....	257	5219
Amores, Esteban. ....	.....	6.20	.....	.....	257	5219
Amoyo, Felipo. ....	.....	6.13	.....	.....	257	5219
Aporra, Estefanio. ....	.....	.23	.....	.....	257	5219
Abenes, Magno. ....	.....	240.50	.....	.....	257	5219
Abenes, Mago. ....	.....	411.00	.....	.....	257	5219
Adams, Byron S. (printer) ¹. ....	.....	2 036.80	.....	Jan. 15, 1921	.....	.....
Ames, Geo. F. ²	Major, Quartermaster Corps. ....	.....	15,317.81	Mar. 19, 1920	.....	.....
Birney, Herman H., jr. ²	Second lieutenant.	1,403.50	.....	Jan. 15, 1921	.....	.....
Baxter, John E.	Major. ....	.....	18.96	.....	257	5219
Brown, L. C.	Captain. ....	.....	72.00	.....	257	5219
Bailey, G. G.	Major. ....	.....	106.00	.....	257	5219
Do.	do. ....	.....	31.09	.....	257	5219
Barnard, J. H.	Lieutenant. ....	.....	4,555.06	.....	257	5219
Bowley, A. J.	Captain. ....	.....	301.27	.....	257	5219
Bingham, Theodore A.	Brigadier general. ....	.....	247.00	.....	257	.....
Barry, J. A.	Lieutenant. ....	.....	135.00	.....	257	5219
Beard, S. R.	Second lieutenant.	168.80	.....	.....	257	5219
Biddle, David H.	Lieutenant.	547.83	.....	.....	257	5219
Baker, Francis J.	Second lieutenant.	141.00	.....	.....	257	5219
Basado, Bregido. ....	.....	112.23	.....	.....	257	5219
Bugtas, Daniel. ....	.....	27.60	.....	.....	257	5219
Bacola, Teresa. ....	.....	12.83	.....	.....	257	5219
Basada, Emperatriz. ....	.....	6.20	.....	.....	257	5219
Basada, Lucia. ....	.....	3.13	.....	.....	257	5219
Banal, Mateo. ....	.....	5.80	.....	.....	257	5219
Badillo, Jose. ....	.....	11.13	.....	.....	257	5219
Basada, Manuel. ....	.....	10.16	.....	.....	257	5219
Barrid, Melchor. ....	.....	27.60	.....	.....	257	5219
Bagtong, Teresa. ....	.....	.24	.....	.....	257	5219
Bugtas, Guillermo. ....	.....	.20	.....	.....	257	5219
Bransford Realty Co. ....	.....	132.20	.....	.....	257	5219
Bowman, William (H. Doc. 301).	Captain. ....	.....	3,000.00	.....	.....	.....
Brown, Preston (H. Doc. 301).	Major.	95.80	.....	.....	.....	.....
Berwind-White Coal Mining Co. (H. Doc. 301). ....	.....	118.40	.....	.....	.....	.....
Bowers, Ralph E. ⁴	Captain.	135.10	.....	Jan. 15, 1921	.....	.....
Canby, James.	Major. ....	.....	80.00	.....	257	5219
Carter, Jesse McI.	Major general. ....	.....	352.23	.....	257	5219
Cady, Frank C. ....	.....	127.61	.....	.....	257	5219
Clement, Joseph T.	Lieutenant.	50.00	.....	.....	257	5219
Cultura, Felice. ....	.....	91.00	.....	.....	257	5219
Capito, Ordinito. ....	.....	60.66	.....	.....	257	5219
Cardona, Manuel. ....	.....	6.00	.....	.....	257	5219
Cruz, Lorenzo de la. ....	.....	18.40	.....	.....	257	5219
Cardona, Valverde. ....	.....	18.40	.....	.....	257	5219
Capones, Juan. ....	.....	4.13	.....	.....	257	5219
Cenira, Augustin. ....	.....	4.13	.....	.....	257	5219
Castillano, Mariano. ....	.....	14.10	.....	.....	257	5219
Chappell, Henry C. ....	.....	58.50	.....	.....	257	5219
Charleston American ⁴. ....	.....	38.40	.....	Jan. 15, 1921	.....	.....
Cory, H. D. ³	Captain, Quartermaster Corps.	600.00	.....	Mar. 19, 1920	.....	.....
Coleman, F. W. ⁴	Colonel. ....	.....	12.90	Jan. 15, 1921	.....	.....

¹ Authority of Secretary of War, Dec. 7, 1920.

² Authority of Secretary of War, Sept. 20, 1919.

³ Authority of Secretary of War, Mar. 30, 1920.

Claims—Continued.

Name.	Rank.	Appropriation required.	No appropriation required.	Forwarded to Congress.	Senate bill.	House bill.
Doak, Sloan.....	Lieutenant.....	\$150. 00			257	5219
Discar, Pedro.....		6. 20			257	5219
Discar, Geronimo.....		4. 96			257	5219
Dispatch ⁴		60. 48		Jan. 15, 1921		
Daugherty, R. D. ⁷	Captain.....	256. 91		Mar. 19, 1920		
Esslinger, J. P. ⁸	do.....	120. 44	\$499. 56	Jan. 15, 1921		
Ely, H. E.....	Major.....	200. 00			257	5219
Emery, Lewis J.....	Captain.....	139. 00			257	5219
Evening Post ⁴		40. 32		Jan. 15, 1921		
Fauntelroy, Powell C.....	Major.....	601. 40			257	5219
Foster, H. G.....	Second lieutenant.....	350. 48			257	5219
Fitton, Feliciano.....		27. 60			257	5219
Fiske, Charles H., jr. ⁹	Special officer.....		395. 00	Mar. 19, 1920		
Geere, Frank.....	Captain.....		29. 00		257	5219
Graham, G. D.....	Lieutenant.....	301. 20			257	5219
Galope, Bernardo.....		. 20			257	5219
Hanson, Thomas G.....	Colonel.....		181. 26		257	5219
Hobson, S. W.....	Doctor.....	56. 00			257	5219
Hipa, Andres.....		90. 00			257	5219
Hanna, Mathew E.....		532. 18			257	5219
Hodgson, Frederick G.....		21. 00			257	5219
Hawkins, George W. (H. Doc. 301).....	Captain.....		3, 360. 00			
Hall, John H. (H. Doc. 301).....	Lieutenant.....	200. 00				
Johnston, Frederick S.....	Captain.....	68. 00			257	5219
Kinnison, Henry L.....	do.....		82. 50		257	5219
Kremers, E. D.....	do.....	340. 00			257	5219
Keys, Nelson (H. Doc. 301).....	Lieutenant.....	238. 75				
Kelly, James ¹⁰	Master sergeant (major).....	3, 029. 46		Jan. 15, 1921		
Littell, I. W.....	Lieutenant colonel.....		98. 65		257	5219
Leland Stanford Junior University.....		450. 01			257	5219
Legion, Lino.....		61. 66			257	5219
Murphey, T. E.....	Captain.....		15. 98		257	5219
Mott, T. Bentley.....	Lieutenant colonel.....		56. 33		257	5219
McAfee, L. B.....	Captain.....	293. 00			257	5219
Margetts, N. E.....	do.....	67. 90			257	5219
Miles, Sherman.....	do.....	57. 95			257	5219
Miner, H. E.....	Lieutenant.....	160. 00			257	5219
MacDonald, James E. ¹¹	Major.....	39. 33		Jan. 15, 1921		
Newburgh News Printing & Publishing Co. ¹²		27. 00		do.....		
Normoyle, James E.....	Major.....		5. 00		257	5219
Newbill, W. D.....	Colonel.....		39. 25		257	5219
Newbold, Henry L.....	Major.....		2, 157. 61		257	5219
Nelson, Charles J.....	do.....		1, 636. 46		257	5219
Newbold, Henry L. (H. Doc. No. 301).....	do.....		319. 37			
New York Evening Journal ¹³		420. 00		Jan. 15, 1921		
Owen, Laertus J.....	Captain.....	191. 67			257	5219
Osido, Francisco.....		18. 40			257	5219
Pettus, H. L.....	Major.....		1, 545. 00		257	5219
Potter, Waldo C.....	Lieutenant.....		375. 00		257	5219
Postum, Juan.....		16. 34			257	5219
Phillips, Talmage ¹⁴	Captain.....		4, 727. 57			
Republican ⁴		22. 50		do.....		
Reynolds, Frederick P.....	Lieutenant colonel.....	323. 90			257	5219
Ruggles, Francis A.....	Lieutenant.....	414. 81			257	5219
Risler, Charles F. ¹⁵	Captain.....	57. 00		Mar. 19, 1920		
Stone, David L.....	do.....		1, 191. 00		257	5219
Sturtevant, Girard.....	do.....		2. 99		257	5219
Short, Walter C.....	Lieutenant.....		531. 00		257	5219
Scorer, Charles E.....	Captain.....		3, 031. 76		257	5219
Squier, George O.....	Lieutenant colonel.....	41. 46			257	5219
St. Francis Hospital.....		47. 90			257	5219
Stuart, Hastie A.....	Second lieutenant.....	182. 40			257	5219
Schlusser, Adam E.....	Captain.....	278. 00			257	5219
Squires, Wm. A.....	First lieutenant.....	290. 79			257	5219
Suna, Tin.....		244. 50			257	5219
Saville, M. E.....	Colonel.....	1, 369. 55			257	5219

⁴ Authority of Secretary of War, Dec. 7, 1920.⁷ Authority of Secretary of War, May 13, 1919.⁸ Authority of Secretary of War, June 10, 1919.⁹ Authority of Secretary of War Jan. 14, 1920.¹⁰ Authority of Secretary of War, Dec. 27, 1920; partial refund made.¹¹ Authority of Secretary of War, Nov. 20, 1920.¹² Authority Secretary of War, Apr. 10, 1920.¹³ Authority Secretary of War, May 7, 1920.¹⁴ Authority Secretary of War, June 16, 1920.¹⁵ Authority of Secretary of War, Jan. 21, 1920.

Claims—Continued.

Name.	Rank.	Appropriation required.	No appropriation required.	Forwarded to Congress.	Senate bill.	House bill.
Swords, Nellie.....		\$140. 00	.....	.....	257	5219
Schmidt, John.....		216. 75	.....	.....	257	5219
Spencer, Sam.....		155. 00	.....	.....	257	5219
Southern Iron & Metal Co. (H. Doc. No. 301).		1, 189. 35	.....	.....
Schultz, Theodore (H. Doc. No. 301).	Colonel.....	400. 00	.....	.....
Spokesman-Review ⁴		23. 40	.....	Jan. 15, 1921		
Sharp, T. R. ⁴	First Lieutenant.....	115. 90	.....	do.....		
Stivers Printing Co. ¹²		22. 50	.....	do.....		
St. Claire, F. L. ¹⁰	Captain, Quartermaster Corps.		\$6, 978. 24	Mar. 19, 1920		
Timberlake, Edward J.....	Major.....		2, 580. 00	.....	257	5219
Taulbee, J. F.....	Lieutenant.....	200. 00	.....	.....	257	5219
Treasury Department, Public Health Service.		700. 00	.....	.....	257	5219
Teller, D. A. (H. Doc. 301).....	Captain.....	770. 00	.....	.....
Veloso, Antonia.....		7. 67	.....	.....	257	5219
Vritas, Lucas.....		. 20	.....	.....	257	5219
Whitham, Jay D.....	Captain.....	86. 80	.....	.....	257	5219
Wells, Briant H.....	do.....		171. 00	.....	257	5219
Wolfe, O. R.....	do.....		40. 00	.....	257	5219
Watts, Arthur P.....	do.....		660. 11	.....	257	5219
Williams, Kenneth P.....			2, 580. 85	.....	257	5219
Total.....		22, 863. 85	58, 097. 04	.....	

⁴ Authority of Secretary of War, Dec. 7, 1920.

¹² Authority of Secretary of War, Apr. 10, 1920.

¹⁰ Authority of Secretary of War, Jan. 13, 1920.

MONDAY, JANUARY 10, 1921.

MORAL TRAINING.

STATEMENT OF R. I. REES, LIEUTENANT COLONEL, WAR PLANS DIVISION, GENERAL STAFF.

Mr. ANTHONY. You are head of the vocational training?

Col. REES. I am chief of the education and recreation branch of the War Plans Division, sir, which embraces vocational training, M. P. E., and moral training.

Mr. ANTHONY. Col. Rees, you have got an entirely new paragraph here entitled "Moral training," for which you are asking \$240,500. There has never been any provision heretofore for work of this kind, as I understand it.

Col. REES. No, sir. We have been carrying it on for the past year and a half, sir.

Mr. ANTHONY. You have been carrying it on with the——

Col. REES (interposing). With these extra funds that Maj. Greely has just mentioned.

Mr. ANTHONY. And that you have been doing under the head of moral training?

Col. REES. We have been encouraging the work of the chaplains; we have been making an effort to coordinate all the work of moral training, educational and vocational training, and recreation with a character-training element in it. One of the important things that we have accomplished in the last year and a half, for which the Surgeon General gave us full credit, is as thorough a control as possible

of the problem of sex morality to reduce the venereal rate, so that now the venereal rate is lower than it has ever been in the history of the Army.

Mr. ANTHONY. Do you think that has been accomplished through medical or moral efforts, sir?

Col. REES. Both, sir; a combination of both. And the medical men will testify that the personal self-control element has been perhaps the greatest factor in that reduction.

Mr. ANTHONY. This appropriation you are asking for really supplements the work of the Chaplains' Corps of the Army?

Col. REES. It is almost entirely for chaplains.

Mr. ANTHONY. The chaplains have been doing this work, however, heretofore, have they not?

Col. REES. Yes.

Mr. ANTHONY. I wish you would itemize the manner in which you want to spend the \$240,000.

SALARIES, CIVILIAN PERSONNEL.

Col. REES. Yes, sir. I am simply asking for salaries, \$24,000 for civilians. Traveling expenses of civilian employees, \$2,500. I have prepared a written statement of the object of expenditures.

Mr. ANTHONY. I wish you would put that itemization in the record.

Col. REES. Yes, sir; I will.

EDUCATIONAL TRAINING OF CHAPLAINS.

Mr. CRAMTON. I would be interested to go a little further to see whether this is for the moral training of the soldiers or the educational training of the chaplains—starting a chaplains' school, does that have anything to do with moral training?

Col. REES. Most decidedly it does, sir. I think our chief of chaplains, who is right here, can make that clear to you.

Mr. CRAMTON. I would like to have his testimony on that.

Mr. ANTHONY. Let us hear from the chaplain.

Col. REES. I will just put this statement in the record.

Mr. ANTHONY. Yes, thank you, Col. Rees.

Moral training: For the construction, repair, and maintenance of suitable buildings for the Chaplains' Service School, at Camp Grant, Ill., and for chapels and chaplain's offices; for the purchase of books, posters, and miscellaneous printed matter; for the hire of the necessary civilian consultants and lecturers within the District of Columbia and elsewhere, and for the payment of their traveling and other expenses as authorized by existing law; for donation to chaplains' funds, to be expended by chaplains for the promotion of character development, moral and religious welfare, and the contentment of the personnel of the Army, not to exceed the sum of \$50 per month to each chaplain; and for such other purposes relative to moral training in the Army as the Secretary of War may prescribe, \$240,500.

Moral training—Estimated for 1922.

Salaries of 6 consultants and lecturers, at \$4,000 per annum.....	\$24,000
Construction, repairs, and maintenance.....	2,500
Supplies.....	200
Chaplains' funds.....	144,000
Traveling expenses civilian employees.....	2,500
Miscellaneous items.....	5,000
Total.....	240,500

**STATEMENT OF COL. JOHN T. AXTON, CHIEF OF CHAPLAINS,
UNITED STATES ARMY.**

FOR CONSTRUCTION, MAINTENANCE, ETC., OF CHAPELS AND CHAPLAINS' OFFICES.

Mr. ANTHONY. Col. Axton, I believe you are chief of the Corps of Chaplains?

Col. AXTON. Yes.

Mr. ANTHONY. Will you tell us something about the reasons why this new provision was put in the bill, and, as Mr. Cramton desires, something about the chaplains' school at Camp Grant?

Col. AXTON. The first item there, one about which Col. Rees spoke, is for construction, repairs, and maintenance of chapels and chaplains' offices, etc., throughout the service. It is \$62,500. That does not, of course, contemplate the construction of any chapels, because no chapel could be put up with that amount of money that would be adequate. It simply allows us a small fund to take care of the repairing and altering and putting into shape to make them chapels such buildings as are now available for chaplains' use for offices and chapels. Take one example: Down at Camp Eustice, right near you here, we took one of these cantonment barracks and cleaned the interior out; the roof was trussed; a steeple put up on it, and the building painted white, and it looks fine; it stands for the church and the things the church stands for right in the heart of a camp without very much expenditure—only \$1,500.

Mr. SLEMP. How much?

Col. AXTON. I should judge the entire expense would be about \$1,500, including the white paint and the erection of the steeple, although there was some volunteer work on it.

Mr. CRAMTON. I thought steeples were going out of fashion on churches.

Col. AXTON. Oh, no; the steeple certainly helps.

Mr. SLEMP. You are asking \$63,000 for construction, repair, and maintenance?

Col. AXTON. Yes; for \$62,500.

Mr. SLEMP. That is all.

/

CHAPLAINS' FUND.

Col. AXTON. Yes, sir. Then the largest item for which we ask is for \$144,000 for chaplains' funds. That represents the expenditure of \$50 per month by each one of the 240 chaplains in the service—\$600 per year for each chaplain. The chaplain's activities heretofore have been very largely a question of how forehanded the chaplain was in the matter of getting funds to carry on his work. If the chaplain was magnetic in his appeal to those who had the means he generally had enough to do his work; but there was no uniformity about it whatsoever.

Mr. SLEMP. But the Government always paid their salaries.

Col. AXTON. It paid them a salary, which is really a small part of his work, and out of his salary he usually paid many of his actual expenses—I mean flowers, music, things that make for the good of the service. Now, there is springing up among denominations a

desire to cooperate and help the chaplains. Some societies send \$25 per month, and some much more than that, to chaplains of their denominations for the care of these little incidentals; but there is no uniformity whatsoever about it. They have resented it and they have said that the Government provides everything else that is essential to the welfare of the soldier, and why not pay for these necessary incidentals in order that the chaplains may function properly. Thus we have requested \$144,000, which is, to my mind, a very modest sum, which would cover such expenditures as might be necessary where no voluntary service could be rendered. For instance, I spoke at a service at Camp Humphreys a week ago last night and 15 minutes after time for the service to begin no organist had appeared. The same thing happened to my associate just last Sunday night; last night at the same place the organist who volunteered to play and who was expected did not show up.

Mr. SLEMP. Have you given any consideration to the difficulty of securing a paid organist at one of these cantonments on such a small amount as you would be able to pay him?

Mr. CRAMTON. And the difficulty involved in it?

Col. AXTON. I have throughout all of my service been able to find some one who could play and who for just a nominal stipend would make it a regular engagement.

Mr. ANTHONY. They all want nominal pay, because churches always pay for their choirs.

Col. AXTON. Because it is an established custom of the church to pay something for such services and they look for it. I have even known an officer's wife who was in a post where I was some year ago who wanted pay for singing in the choir, saying she was paying for her music lessons and if she used her voice in church she wanted to know why she should not have enough in return to pay for her music lessons; it all gets down to the proposition that if you want to get the right kind of service you have got to pay for it; and a cheap program nowhere has so bad an effect as a cheap program in religious service.

Mr. SLEMP. How many different units have you at which you have exercises?

Col. AXTON. Every chaplain conducts them.

Mr. SLEMP. Take an army of 150,000 men.

Col. AXTON. Every chaplain conducts services every Sunday; and in addition to that generally a union service or two conducted in the large camps. Each chaplain is attached to a unit of a post and he carries on the general work in his unit. If the Army is 150,000 or 250,000 or 350,000 this item would not be affected in any way because it pertains to the man doing the work in a specific place; it matters not whether my congregation is 500 or 1,000, the same facilities will conduct the service.

Mr. CRAMTON. This \$50 per month, then, is largely to take care of the organist expense and possibly choir expense, and that sort of thing?

Col. AXTON. It goes further than that; the music, the little printed occasional order of worship for special days.

Mr. CRAMTON. Is it intended at all to give the chaplains a little fund of, say, a few dollars to occasionally aid the enlisted man in some way?

Col. AXTON. Specifically, chaplains are instructed that assistance of such a nature should not be given by them; the American Red Cross now functions in all our camps and takes care of those things, the necessity of the enlisted men occasionally for loans—chaplains are discouraged from taking care of that matter.

Mr. CRAMTON. Do you think it necessary to have this training for personal service?

Col. AXTON. It would be a very good thing; I have known one big, well-conducted service to contribute much to the contentment of a big group of men. We have the chaplains' school already established; the calls for that are not much; here we have \$2,500 for incidentals and supplies. We have—I would not call them graduates because a 12 weeks' course graduates no man in anything, but we have a 12 weeks' course, and we have had two classes finish the course, and we have one more class of 27 just beginning.

Mr. CRAMTON. What is the expense of that?

Col. AXTON. The expense of that is—we have no civilians there. Five chaplains constitute the faculty and aid in the religious work of the camp where the school is located, representing four different denominations. These five chaplains constitute the faculty, and we ask for \$2,500 a year because of the necessity for textbooks, etc.

Mr. CRAMTON. But you have no civilians in this chaplains' school.

Col. AXTON. All civilians come from outside funds; sometimes during the past year we have had one civilian clerk employed there.

PAY OF CIVILIAN CONSULTANTS AND LECTURERS.

Mr. CRAMTON. What is this item for the pay of civilian consultants and lecturers?

Col. AXTON. That is the first item which Col. Rees defended.

Mr. CRAMTON. It has nothing to do with the school for training chaplains?

Col. AXTON. No, sir; this is in furtherance of this moral training.

Mr. CRAMTON. Are these civilian consultants for the chaplains at all?

Col. AXTON. No; except as they may be called upon to advise the War Plans Division in its moral work along broader lines; but these civilian consultants in the other departments can be of very large service to the chaplains' section, helping us in our work; we conceive at the chaplains' conferences those things that are necessary to boosting the morals of the men.

Mr. ANTHONY. Just how do you propose to supplement the work of the chaplains' section by this moral welfare service; how do you propose to supplement the work of the chaplains with these civilians?

Col. AXTON. In order for our chaplains to do their best work and continue their activities efficiently it is essential that they should have support; we call these chaplains together for conferences. A conference to be really of worth must have some outside element of support and strength, and these civilian consultants could do wonders in the matter of helping to bring new ideas and inspiration; chaplains are not all-sufficient, and outside help is very welcome and is very essential sometimes to get our program going right. Then there is this feature to it, Mr. Anthony: The churches are very, very zealous to do something in the Army; they are very anxious to do something

in the proper manner and proper relationship; we already have 21 or 22 different denominations represented and we will probably have more when we get our corps to its final basis; we have been watching it for some time, and it would really be very much worth while if we might bring the biggest men of the church, the outstanding men, and let them come to a conference of our chaplains.

Mr. ANTHONY. Speaking of supplementing the work of the Medical Corps in the Army through the chaplains, have you any Christian Scientists yet in your Corps of Chaplains?

Col. AXTON. Not now; we had some during the war.

Mr. ANTHONY. Have you any present candidates for admission?

Col. AXTON. We have one candidate under consideration.

Mr. ANTHONY. He is eligible, is he?

Col. AXTON. He is eligible under the law, if he is eligible otherwise—I read the law to mean so anyway.

Mr. ANTHONY. That was our intent.

Col. AXTON. That was the intent of the law, I take it.

Mr. ANTHONY. Gentlemen, do you wish to ask Col. Axton any further questions?

Mr. SLEMP. No, sir.

Mr. CRAMTON. I do not.

Mr. ANTHONY. We are very much obliged to you, Col. Axton.

Col. REES. I want to ask you one more question: In this vocational training paragraph you have the words, "Within the District of Columbia" that you propose to add. Is that intended to provide for departmental employees here in the District of Columbia?

Col. REES. Heretofore I have appeared before Mr. Wood and submitted details regarding two individuals to be here in Washington, sir. They are the colonel-chairman and the secretary of the advisory board that Gen. Haan speaks about.

Mr. ANTHONY. You do not know whether they are provided for in the legislative bill?

Col. REES. They are not.

Mr. Sisson. That will be subject to a point of order in this bill.

Col. REES. But I appeared before Mr. Wood. There are only two and that is absolutely all that there will be.

"For the hire of the necessary civilian consultants and lecturers, within the District of Columbia and elsewhere, and for the payment of their traveling expenses as authorized by existing law," an appropriation of \$26,500 is desired.

It is proposed to use this appropriation substantially as follows:

One consulting specialist, character education, salary, full time.....	\$5 00
Services of character education experts who may be brought to Washington for consultation.....	1 00
Allotment to corps area commanders for similar services and for lecturers in nine corps areas, at \$2,000.....	18 00
Traveling expenses of all of above.....	0 00
Total.....	24 00

As stated in Report of Chief of Staff to the Secretary of War, 1920 (p. 59):

"Moral training. -With the issuance of General Orders, No. 109, War Department, September 15, 1919, the War Department officially recognized for the first time that moral training, character building, and religious guidance of the soldier are an integral part of the Army training system and that the primary purpose of Army training is to produce such a symmetrically developed individual, through adequate attention to body, mind, and soul, as will enable him to function most efficiently in national defense, both in war and in peace.

"War Department Circular 13, January 8, 1920, sets forth the basic principles of character and moral training in the Army, and indicates the necessity of coordinating military training, education, recreation, etc., for the purpose of creating an environment favorable for the development of the character element, which is important in every activity of the soldier's life."

The adoption of this policy came largely as a result of the knowledge gained during the World War that the proper development of the character element in the soldier is a matter of vital importance, both in connection with his military efficiency and his future usefulness as a civilian. One result easily measured is the reduction of the rate of venereal disease in the present Army to less than one-half the prewar rate. In the opinion of the Surgeon General's office, measures designed to promote moral training have largely accounted for this reduction. Other results which can not so easily be measured may be of even greater importance.

During the war, in addition to vast sums of money expended upon recreation and for the direct assistance of Army chaplains, many hundreds of thousands of dollars were expended in various ways for the specific purpose of promoting character development of the Army personnel, and hundreds of individuals were employed or freely gave their services in the furtherance of this end. Reports of commanding officers, here and abroad, are full of commendations for the value of this service in making the Army a more effective instrument for the successful prosecution of the war.

When the Army took over the work of the welfare organizations these societies generously provided for the promotion of moral training until such time as Congress could make adequate provision for its continuance. The possession of these funds has made it possible for the Army to employ a consulting specialist on character education, who has given his entire time to the development of this work and in addition to bring together in conference some of the foremost students in the country along this line to pass judgment upon the policies which have been inaugurated and to suggest possible modification or improvement.

In addition, lecturers and other specialists have been employed in the field under the direction of the department commanders.

The results of this work have been of such evident benefit to the Army that the small appropriation asked for is felt to be justified even under present conditions. The main reliance for the administration of moral training will continue to be upon the commanding officers and upon the chaplains, but they need the best technical advice that can be secured. The development of a high type of character is a fundamental need in the training of an effective Army, yet it presents difficulties here as it does in industry and in the educational system that are confessedly very great. The entire solution of these problems should not be left to those who are already overburdened with their professional and administrative duties. The War Department at Washington and the corps area and other commanders should have at least the minimum of technical advice and assistance which this appropriation would provide.

In every great industry to-day men are employed who give their entire time and attention to the consideration of the best methods of developing in the industrial personnel of those character elements—honesty, reliability, loyalty, etc., upon which it is now seen the very existence of organized industry depends. School systems are employing experts in character education. Even churches employ specialists to assist their clergy in the character training of their youth and in other special tasks. The Army, where the proper preparation of its human material along these lines is a prime necessity, should have the benefit of the expert knowledge, the inspiration and the vision of those who see this problem in its larger implications and who have demonstrated their ability to be of great value in the working out of those methods of man building and citizenship making which are consistent with our American ideals and institutions.

MONDAY, JANUARY 10, 1921.

VOCATIONAL TRAINING.

STATEMENTS OF MAJ. GEN. WILLIAM G. HAAN, DIRECTOR WAR PLANS DIVISION, GENERAL STAFF; LIEUT. COL. R. I. REES, CHIEF, EDUCATION AND RECREATION BRANCH; DR. C. R. MANN, CHAIRMAN ADVISORY BOARD ON VOCATIONAL TRAINING.

Mr. ANTHONY. Gen. Haan, are you in charge of the training activities of the Army?

Gen. HAAN. Yes, sir; I have general charge.

Mr. ANTHONY. You are asking for a total of \$5,729,500 under the heading of "Vocational training."

Gen. HAAN. Yes, sir.

Mr. ANTHONY. You received an appropriation of \$3,500,000 for the current year for that purpose. Can you tell us how much money has been allotted under the heading of "Vocational training" for the current year and how much has been expended so far of that amount?

Gen. LORD. I can give you that figure, Mr. Chairman. There was an appropriation of \$3,500,000. There has been \$3,450,000 apportioned, and of that \$3,297,154.50 has been allotted to meet expenditures.

Mr. ANTHONY. Allotted or practically expended?

Gen. LORD. That is equivalent to expenditure.

Mr. ANTHONY. There will be a deficit in that item this year?

Gen. LORD. I think not.

Mr. ANTHONY. You are going to confine the expenditures to the amount of the appropriation?

Gen. LORD. They have an unallotted balance of \$202,845.

Mr. ANTHONY. Gen. Haan, will you give us a general statement in regard to these activities?

GENERAL STATEMENT.

Gen. HAAN. I would like to take up the matter very briefly, Mr. Chairman, from the beginning of the educational work in the Army. This activity was initiated by the act of 1916, known as the national defense act, under section 27. Just what caused this to be inserted in the act I do not know. I do not think, however, it came actively from the Army. I think one of the main ideas at that time was to give the men an opportunity for a little education rather than to prepare them for their military duties.

During the war we discovered that a great many more technically educated men are needed in a modern army than we had actually figured upon. For example, in my own division of about 24,000 men I had to carry on 30 technical schools; that is to say, about 6,000 men out of those 24,000 men were going to school and being prepared educationally for the technical duties they had to perform in a combat division. Back of the line that number is a little larger. I do not know just how large it is. But the estimate of my own officers and others, of the number of men that need technical; that is, more than the ordinary educational instruction in a division, is 52 per cent.

During the war we established schools not only in the divisions but all over the United States for the technical training of men. That was carried on on a very large scale under the supervision of the War Department.

Mr. CRAMTON. By 52 per cent you mean that as to that 52 percent their technical training was of more importance in military use than military training?

Gen. HAAN. No; that I would not say. The military training is necessary in any case. But the technical training was necessary in addition to the military training, so that those soldiers, wherever they were placed, understood the peculiar duties they had. Perhaps the importance of technical education for some of them was paramount, such as the Signal Corps line men; special repair men for machine guns for example. When we come to an operating man on a machine gun, for example, he had to understand certain technical things about it, and he also had to understand the tactical use of the machine gun. It is very difficult to say which is the more important. Both were necessary.

Now, Mr. Chairman, when the war closed this educational work was going on, and we pressed it rather actively in Europe to give the men something to do, because after the armistice it was a difficult thing to make the men understand that we could not send them home immediately. One of the activities we undertook by which to raise the morale of the men was educational work. I had over 100,000 men under my supervision at that time in Germany, and the thing that occurred to me was to keep these men busy in some way, to keep them under perfect control and discipline in case we needed to use them further in military operations. That was my first consideration.

Mr. SLEMP. Were you the commander of a division?

Gen. HAAN. I was a corps commander, commanding the Seventh Corps after the armistice.

The educational work grew, and they got a lot of assistance from civilians sent to us. It was a very attractive thing and we pressed it as the means of raising the morale of the command and also of giving instruction. Schools were built up of all kinds, technical schools and the elementary schools, and it was very interesting to see how much interest the men took in that kind of work. So the schools grew.

Mr. SLEMP. Did other corps commanders adopt the same policy?

Gen. HAAN. Yes. There were orders from Gen. Pershing at headquarters to carry the educational activities as far as we could. Of course you know we established a university at Beaune, which was a very large educational activity, but it was small compared to the total amount of educational work going on in the American Expeditionary Force.

When we returned to the United States we found that here as in Europe the educational work and recreational work was largely carried on by certain civilian organizations under the supervision of the War Department. Although in Europe, while the educational work or system was being installed, educators were gradually furnished by the Army and paid from the Army funds; so that it may be said that in Europe educational work was done partly by voluntary workers employed by the affiliated organizations from donated funds and partly by professional educators employed and paid from the War De-

partment funds. The Secretary of War had a careful survey made of the whole situation and required a study to be prepared in the War Plans Division. His ultimate decision was that inasmuch as certain educational work had become a necessity for the proper preparation of the Army for war, this work should not be in the nature of a side activity carried on by voluntary workers and donated funds, but rather one of those things making up the essentials of the training of an army and placed in its proper category in the basic organization of such an army. He directed, therefore, that plans be made to take over all educational and recreational work in the Army from the affiliated organizations and that estimates should be prepared for the necessary funds to carry on this work in a modest but well organized manner and placed the supervision of this work under the Director of the War Plans Division. Thus did this activity come under my supervision and after giving the matter careful study, I came to the conclusion that it should be recognized as a part of the basic organization of the peace establishment of the United States Army as defined in section 3 of the National Defense Act, as amended by the act of June 4, 1920.

Mr. ANTHONY. That is all very true in regard to the technical education of the men who are required in the technical arms of the service. But what have you to say about the propriety of carrying on in time of peace this so-called general, classical education?

Gen. HAAN. I will come to that directly.

Mr. SLEMP. Before you leave the European situation, will you tell us something of your activities during the war and after the war in trying to keep the men busy in baseball games and a lot of incidentally interesting things? During the war you did not have to do much of this, did you?

Gen. HAAN. We had to do it before we could get into the war.

Mr. SLEMP. That was on this side?

Gen. HAAN. That was here and over there, too.

Mr. ANTHONY. That is the technical education?

Gen. HAAN. That is the technical education; yes. Recreational work was carried on largely by the Y. M. C. A., the Knights of Columbus, and several other organizations.

Mr. SLEMP. The Army is a fighting proposition.

Gen. HAAN. We want to make it the best fighting organization we can get, and educational work is necessary for that, Mr. Slemp.

Mr. SLEMP. You do not mean to say that 52 per cent of the men who went to France, out of more than 2,000,000, had to be put in schools over there?

Gen. HAAN. No; I do not mean to say that. Out of the 24,000 I had in my division I had to put 6,000 in schools. With the remainder that was not necessary. And I had no illiterates in my division at all.

Mr. SLEMP. That would be about 25 per cent?

Gen. HAAN. Yes, sir.

Mr. SLEMP. You found from your experience in France that out of your total number of men 25 per cent of them had to be given some sort of technical training before you could get the maximum results from their training?

Gen. HAAN. I would say that; yes.

Mr. ANTHONY. What was the percentage of illiteracy in the Army, among the total number of recruits, during the war?

Gen. HAAN. I do not quite understand your question.

Mr. ANTHONY. What was the percentage of men in the service during the war who were illiterate?

Gen. HAAN. I have heard many statements on that, ranging anywhere from 12 to 25 per cent, depending on just what you mean by illiteracy. I can not give you an accurate, definite answer to that.

Mr. ANTHONY. What did you mean when you made your statement about that?

Gen. HAAN. I had a National Guard organization in which the qualifications for enlistment were the same as those in the Regular Army before the war, and they did not enlist illiterates.

Mr. CRAMTON. I think the record ought to show the number of the division you commanded.

Gen. HAAN. It was the Thirty-second Division.

Mr. ANTHONY. So the divisions composed of National Guard troops were of a higher class, from the educational standpoint, than the drafted men, as a rule?

Gen. HAAN. Oh, yes; because they did not take any illiterates in their organization. That made the proportion of illiterates larger among the drafted men because there illiterates were not disqualified.

Mr. ANTHONY. Where did your division come from.

Gen. HAAN. From Wisconsin and Michigan.

Gen. LORD. The percentage of illiteracy in the Army at large was 24.6.

Col. REES. That is one of the percentages given, but, as Gen. Haan said, it depends upon what test you take.

Mr. CRAMTON. I think perhaps in connection with your statement that 6,000 men in that division had to be kept in training the record ought to show something of the activities of that division. It is my recollection that in the casualties it ranked fourth.

Gen. HAAN. I think it was fourth.

Mr. CRAMTON. I think the type of that division should appear, in which such a large amount of the education you speak of was necessary.

Gen. HAAN. We never have claimed anything special for our division. We were the sixth division that went over, and we got into the fighting early and remained until the finish.

Mr. CRAMTON. But that was a division that was actively at the front?

Gen. HAAN. Yes:

Mr. CRAMTON. And those 6,000 men were in that type of division?

Gen. HAAN. Yes. All the combat divisions needed about the same. Our estimate was, after having a very careful study made, that about 52 per cent of the men in a division needed some kind of technical training, outside of the ordinary education that a man gets in a common school.

Mr. ANTHONY. What you really mean to say is that the reason it was necessary to put 6,000 men in school was due to the fact that the Army in this war had so many new military activities that any army that went into the field would be required to train these men in these new military activities?

Gen. HAAN. That is precisely the point. Perhaps in the future we may be called upon to go even a little further along that line.

Mr. CRAMTON. In the case of these 6,000 men it was not a matter merely of uplift, but it was a matter of training them for their duties as soldiers?

Gen. HAAN. Yes, sir; it was training them for their duties as soldiers. But there are other things besides training a man in his duties. It is a question whether a man is able to handle his job. In an organization such as the Army it must be in such a condition of discipline or spirit, or whatever you may call it, so that the men will immediately respond without question to the word of their commander. To do that we have to do everything we can to raise the morale of our men up to the very highest point. That is just as important, and it seems to me it is sometimes more important than the military instruction that the men have.

The spirit must be there, and the only way you can get it there is to do all the things we can do to raise the morale of the men. It is necessary to build that spirit up in the Army in time of peace so that we may know how to carry it on in time of war. So I think Congress was a little ahead of its time; it was a little ahead of the thought of the Army when it enacted section 27 of the act of 1916, the national defense act. The Army men, who had studied purely military problems, had hardly visualized the necessities that develop in such military forces as have to be used in modern times. They had not realized that we would have to go over so largely to the citizen army idea as we have to in a modern war. It is all a citizen army. The professional soldier that must be maintained in peace time must be maintained primarily to have the correct ideas of building up a citizen army when the war begins. To do that correctly he should be trained correctly and completely in its peace establishment. He should be trained in all those things necessary to be built up in time of war and not wait until war comes to do that. So I am trying to impress the committee with the importance of carrying on educational work not only for the military instruction that is necessary but for the morale that is necessary.

When a man goes into the Army, which you gentlemen believe, I think, is still a necessity in the world, it must be understood that goes into that, not for a life work, except in the case of the officer personnel and certain high-grade enlisted personnel that it is probably advantageous to keep there, but he goes into the Army to get certain training to make him useful for military purposes, and when he comes out he shall also be a useful citizen. That idea is contained in our whole system of training, and it is contained in the very wording of section 27 of the national defense act, which I think is a very well-worded law. I did not think so when I first read it, because at that time I had not given the subject as much study as I have given it since.

Mr. ANTHONY. I will be very glad if you will put section 27 of the national defense act in the record.

Gen. HAAN. Section 27 reads as follows:

In addition to military training, soldiers while in the active service shall have be given the opportunity to study and receive instruction upon educational lines such character as to increase their military efficiency and enable them to return to civil life better equipped for industrial, commercial, and general business occupations. Civilian teachers may be employed to aid the Army officers in giving instruction, and part of this instruction may consist of vocational education either in agriculture or the mechanic arts. The Secretary of War, with the approval of the

President, shall prescribe rules and regulations for conducting the instruction herein provided for, and the Secretary of War shall have the power at all times to suspend, increase, or decrease the amount of such instruction offered as may in his judgment be consistent with the requirements of military instruction and service of the soldiers.

Mr. SLEMP. Why should you emphasize this particular kind of activity any more than the activity of drilling?

Gen. HAAN. I do not.

Mr. SLEMP. Take the raw recruit. You have him in there, and you have your officers and your organization. You put him through his drill and setting up exercises and you teach him the use of the gun, and so forth. Why can not those same officers do this other work?

Gen. HAAN. Officers are not trained as educators, but aside from this officers have so many duties other than actually training with soldiers that their time is not available; whereas the time of the enlisted man is less fully taken up with his military training and part of his time can be spared for educational work. Teaching is a profession that requires very special training and for carrying on educational work in the Army a special organization under trained educators is a necessity.

Mr. SLEMP. That is what I want to develop. In other words, your colleges are arranged that way. The assistant professors in these colleges are drillmasters, and after they give the men instruction in drill they go into the classroom and teach mathematics and other subjects.

Gen. HAAN. Let us turn that around. Suppose you say, why have military instruction, why have military drill? Why do not the professors take the men out on the campus and give them that work?

Mr. SLEMP. That is what they do.

Gen. HAAN. I can not agree with that statement. In certain military schools all instructors are given military rank. Nevertheless, they have in that school an organization for giving military instruction, such as the commandant of the school and his tactical officers. You will find that in all so-called military schools, where military instruction is given by the faculty of the school in such a way that it can be properly called military instruction, an entirely separate organization is contained in the school for carrying on that military instruction. It is called usually the tactical department of the school, and the average instructors of classroom educational work have nothing to do with that, other than to assist in maintaining certain elements of discipline, even during classroom work. At the United States Military Academy, for example, which I think must be accepted as one of the leading military schools of the world, they have a tactical organization, which does not mean that these officers might not be taught to become educators as well, but their entire time is needed to carry on the tactical instruction and the administration of the military organization. In this connection I wish you would keep in mind that a great deal of instruction must be given to our young officers themselves—much of their time is required for their own instruction in post schools and in our special service schools and in our general service schools. Some of this instruction is carried on at stations simultaneously with the military training of the men and it can not be neglected; otherwise these officers will fail to respond in the proper manner when needed for

certain important duties in time of war. I have very carefully studied the law covering this educational work and I am trying to carry out that law as best I can; I am not trying to evade or avoid any part of it.

Mr. SLEMP. I do not doubt that at all.

Gen. HAAN. I have sent out letters to commanders of divisions and others who have in charge the immediate supervision of this training, and in that letter I quote the wording that is now in the act, which provides that wherever possible officers, warrant officers, and noncommissioned officers shall be detailed as instructors. I have a report here from Gen. Harbord, in whom I am sure you have confidence, giving his experience as to how far he has been able to go in this connection. I might say at the present time nearly 50 per cent of our instructors are officers or soldiers. There are 350 officers and something over 1,200 enlisted men acting as instructors at the present time in our schools. Gen. Harbord says:

This employment of enlisted men has not proved a success for the following reasons:

(a) Few qualified men can be found in this camp for this work. This is particularly true with reference to general education and to all trades except automotive. It will be noted that the majority of enlisted men so employed are automotive men. These men are not satisfactory as instructors and all are working as assistants to civilian instructors.

(b) Men so detailed are subject to transfer, discharge, furlough, and special detail. In the cases of the few instructors obtainable, this objection has already been felt. Men are subject to special detail by superior authority without reference to the fact that they are on duty as instructors in the educational and vocational schools.

(c) The attitude of soldier students toward the enlisted instructors is not good. This fact has been demonstrated in the schools of this camp, and is quite noticeable. The soldier students do not credit the enlisted instructor with the knowledge of a civilian instructor.

(d) The enlisted instructors have not the required training to make successful teachers. It is obvious that enlisted men detailed for duty as instructors can not be as well prepared for this work as civilians who are trained for teaching. In spite of the fact that instruction in teaching is given to all enlisted instructors, their method of instruction is not up to the standard which should be required in every school. They seem to take little interest in learning methods of instruction.

Naturally, there is no objection, from the educational standpoint, to the employment of Army personnel for this work if men can be found equipped for it by general education, special training for teaching, and past experience. But, however theoretically correct and desirable, the facts are that the teaching personnel is not in the Army. A careful canvass of the 15,000 men now here, in order to increase our teaching force, revealed but two men with qualifications which warranted their being placed on our teaching staff. Nor does the employment of such men promise that continuity which is so essential in successful teaching. Given the experience here the men will seek civil life where the remuneration for teaching and the prospects for promotion are better.

Any course involving loss of the efficient teaching personnel which has been developed, would, in my opinion, be practically fatal to the school policy.

It is recognized that the burden of expense should be lightened wherever possible by such use of our own personnel, but to attempt to replace all trained civilian instructors in this manner would be as unwise as to assign civilian school teachers to command companies and regiments. Teaching is a profession which requires years of preparation and natural adaptability. Few officers and soldiers are fitted for it. Their assignment to such duty generally means not only a 50 per cent loss of teaching efficiency, but an entire loss of their time from military duties. Teachers do not accomplish results in class-room work alone, but their preparation for their work is a daily and constant process consuming as much time per day as the exercise of any other profession. It will mean also the entire loss of that reciprocal touch and interest between our educational and vocational work and that being conducted by educators in civil life, now secured by the recruitment of our instructors from civil institutions of learning and their constant association with teachers in the community in which our military establishments are located.

Thousands of men now in the Army have enlisted on the promise of the educational and vocational training. This creates the obligation to provide the best possible instruction throughout their three-year enlistment, and demands continuity of policy in these matters and the expenditure of the necessary funds. This obligation can not be evaded without exposing the Government to a just charge of bad faith. The majority of men who have enlisted in the last year probably enlisted on the promise of education. They and the country are looking to us to make good that promise.

The Nation yearly spends immense sums on education. A bonus of some thousands of dollars is given to certain institutions for every agricultural student graduated. Here is the opportunity to build the largest educational institution in the world. The number of pupils enrolled would far exceed the enrollment of our many great universities and, compared to their cost, the expense would be ridiculously small. No marble buildings, no dormitories, no expensive campuses are required or expected. The number of courses and the quality of instruction imparted are limited only by the cooperation received in building up this work. As the system develops, the class of men demanding it will improve, and in time the Army will become the Poor Man's University. This work can not be done elsewhere. Its value can not be reckoned in dollars and cents, but must be computed in terms of trained citizens.

I recently read in Scribner's Magazine an article by an educational man, entitled "The Crisis in Education," in which he gives the qualifications a teacher should have to be successful in the ordinary graded schools. He says the teacher should have at least a high-school basic education and two years' training in a normal school, to make him able to be a good teacher. It is manifest when we look at the men we are able to enlist in the Army that we do not get that class of men.

Mr. SLEMP. For the training of the 25 per cent of the men of your division in France during the war, did you have civilian instructors, or did you have Army instructors?

Gen. HAAN. I had Army instructors almost entirely.

Mr. SLEMP. How did you get along with them under those circumstances?

Gen. HAAN. I got some instructors from technical branches, such as the Quartermaster Corps, Ordnance Department, Signal Corps, etc., but it should be remembered that in an organization such as were many of the companies, battalions, and regiments of the National Guard, the enlisted personnel was not confined to the class of men, particularly as to education, which enlist in the Regular Army in time of peace. Just before the entrance of the United States into the war there was a great influx of volunteers into these National Guard organizations, and among them were many men of education. I recall, for example, that in one Michigan battalion there was a very large percentage of college graduates among the enlisted men. Most of these afterwards became officers. They had the basic educational qualifications therefor when they enlisted. From among that class of personnel it was practicable to select instructor personnel to the extent that it is entirely impracticable to do from the enlisted personnel of the peace-time Regular Army.

Mr. ANTHONY. We probably are going to have a surplus of four or five thousand Army officers with no military duties to perform, if we commission the full authorized strength of the commissioned personnel. Those men will have that education you speak of as necessary, so will it not be possible to get enough instructors from that material?

Gen. HAAN. I hardly think so. I believe, Mr. Slemp, that we are at present using as many officers in educational work as are qualified for that work and as can be spared from other more important

duties. It may be possible that in the development of the school work perhaps even larger numbers may be usefully employed. Among our enlisted personnel I have little hope of developing to any great extent efficient instructors. As a class they simply do not possess adequate basic education, not to speak of practically no training in the art of teaching. I have already indicated that officers have a great deal of work aside from purely military training. The instruction of the officer himself for his proper duties requires much of his time.

Mr. ANTHONY. It would not hurt such a man to teach for a year or two, would it?

Gen. HAAN. A good many of them are teaching, but if you could feel the pressure that is brought upon me and other officers of the War Department to get more officers I do not think the thought would come to you that it was possible to get enough officers.

Mr. ANTHONY. Do you mean to say that with 17,000 commissioned officers for an Army of 150,000 enlisted men there will be military activities sufficient to absorb the entire time of that number of commissioned officers?

Gen. HAAN. I do not think we need half of those officers for the 150,000 men, but as to the other activities prescribed in the national defense act, if common-sense men tried to work out a reasonable compliance with that law, you will find that more than half of the number of officers are needed for other things than training the soldiers of the Regular Army. You give us in that act a problem for the development of the National Guard and for the Organized Reserve, and to a very large extent you give us the problem of guiding the entire instruction of 109,000 young students in colleges to make reserve officers, and a great many other things, because a war Army has nothing to do with the handling of our peace Army. I should say that 5,000 officers would be sufficient to handle the combat training of an Army of 150,000 men in peace time.

Mr. ANTHONY. You were reading an extract from a letter of Gen. Harbord's in which he makes the statement that an enlisted man, because of his enlisted status, will not do as an instructor.

Gen. HAAN. No; that is not exactly it; but it is because of his general lack of qualifications as an instructor. Suppose we take a civilian who is not qualified as a teacher—a soldier before he is enlisted—the ordinary civilian—and try to put him in as a teacher. He could not get the confidence of the students he was teaching, because he does not know how to teach. I do not think it is because he is a soldier, because many of our officers who are directors have become instructors in their specialties in which they are good, and I think they have the confidence of the students as well as do the civilians.

Mr. ANTHONY. It strikes me that that line of argument, that if a man was not fitted to teach simply because other enlisted men would not have confidence in him, although he might have the qualifications to teach, would lead to the necessity of commissioning the civilians to act as instructors and give them the status of commissioned officers simply to get the respect of the enlisted men.

Gen. HAAN. No; I think not; I do not think that is necessary. The officers control; the officers are in control of the instruction of

the Army, of the educational work and everything else. All the directors of these schools are officers of the Army, and officers have control of that just the same as the other activities.

Mr. SLEMP. You were suggesting something that I was thinking about. It is a tremendously interesting subject. Mr. Anthony brought out the fact from you that you believe you could get along with 5,000 officers for an enlisted strength of 150,000 men, but that there are so many activities of the Army outside of the handling of the fighting strength that you would need more than 12,000 officers for those activities. You mentioned the schools as one of those. How many schools are there in the country where there are Army officers?

Gen. HAAN. I can give you the exact number. There are 243 schools, at which about 400 officers are on duty.

Mr. SLEMP. That is what I thought. Still there would be over 12,000 officers going around the country loose.

Gen. HAAN. To command a field army of 150,000 men in combat would require less than half that number of officers. But in the national defense act are prescribed certain things to be accomplished by the War Department for the purposes of making an organization for the national defense that requires many things to be done besides commanding a field army of 150,000 men. Section 3 of the national defense act prescribes the peace establishment of the United States Army and requires that such an organization be perfected in time of peace as will permit of an immediate and complete mobilization in time of war for the national defense. The various sections of the act provide the means whereby this is to be accomplished and places upon the War Department the duty of making the necessary preparations. Among the principal means provided for making this peace time organization are the Regular Army, the National Guard, the Organized Reserves.

Then, there are various other sections which prescribe how the National Guard is to be developed and still others to provide for Reserve Corps officers and reserve enlisted men. Section 3 clearly indicates that from these reserve officers and reserve enlisted men there shall be formed an organization referred to in section 3 as the Organized Reserves. It becomes the duty of the officers of the Army to develop this reserve organization, to get into the reserves sufficient officers and enlisted men to form the basis for a complete mobilization. To form such a basis for immediate mobilization requires actual organization in time of peace. In section 3a and other sections of the act provision is made as to how policies and plans should be studied and prepared for various things; then, in other sections provision is made prescribing duties in connection with the preparation of plans for the national defense. All of these requirements take up much officer personnel, not merely in the preparation of plans, but a great deal more in carrying out these plans in time of peace to the extent that it is necessary in order that at the beginning of war the defense organization under the War Department shall be in a position to carry into effect the mandate of Congress requiring immediate and complete mobilization upon an emergency declared by Congress. This congressional mandate requires not only that the War Department General Staff shall make studies of plans for national defense, it requires that our school system be expanded

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to the necessary extent so that we shall have commanders and important staff officers ready to take charge of this immediate mobilization, and this requires a large number of officers to be kept constantly in school training for that purpose, and all these matters have been carefully studied during the past year by the War Department General Staff and plans have been submitted showing as nearly as it is possible for us to show at this time what it is necessary to do in order to carry out the will of Congress as expressed. So, while a field army of 150,000 men could be trained, maneuvered, and fought in battle by perhaps less than 6,000 officers, yet to carry out the work that is required of the War Department under the provisions of law contained in the national defense act, it is my opinion that 17,500 officers is insufficient to carry out the provisions of that act and accomplish the results that are clearly indicated in section 3 of that act.

Mr. SLEMP. I would like to get your analysis of that distribution of these 12,000 officers, after you have supplied the 150,000 enlisted men with their necessary complement of officers. I would like to know what they would do under the provisions of the national defense act, what distribution you would propose making of the 12,000 officers. I did not mean any reflection on the officers by saying they were going around loose, but I meant there were not any places for them.

Gen. HAAN. You are asking me now about General Staff work which belongs to another division. The principal activities of the Operations Division of the General Staff relate to the personnel. Where I feel it is in the training of the Army, in the development of the National Guard, in trying to get the organized reserve established—the basic establishment that is called for in the act—in the Reserve Officers' Training Corps work. The Operations Division can not give me enough officers.

In the training of the Army I find everywhere that there is a shortage of officers. At the present time we are in a difficult situation. We are still some 4,000 below our quota of officers and the mere commissioning of 17,000 officers is not going to give you 17,000 trained officers. After they are commissioned we have to make officers of them. It requires the work of many experienced officers to do that, in addition to the work they already have. So when we get new officers who are not already trained and qualified, they are of little use until they are properly trained and instructed themselves. We are developing those officers in our officer schools and in other ways, and we have to continue to use the experienced officers to develop those new officers so that if war comes again we will not have to wait six months to issue our mobilization order, as we did last time. Congress has stated the necessities in the national defense act as to what should be done. That act requires in fact that the mobilization order be issued on the day war is declared and become effective at once, instead of taking effect on August 25, although not actually taking effect until after the 10th of September, more than six months after the declaration of war. All we want to do, and what I think you had in mind, is that we should not have that six months' delay, that we should prepare in time of peace to begin mobilization the day war is declared, and thereby save six months.

CIVILIAN INSTRUCTORS—SALARIES.

Mr. ANTHONY. How many civilian instructors have you engaged in the work of vocational training in the Army?

Col. REES. There are 1,158 civilians, and in addition 1,210 enlisted instructors and 356 officer instructors.

Mr. ANTHONY. What are the salaries of these men?

Col. REES. From \$125 a month up to \$3,000 a year, the \$3,000 men being specialists. Then we have a small group of higher specialists who get \$5,000 a year.

Mr. ANTHONY. How many of the higher specialists have you?

Col. REES. I think the last report shows that we have 57 of them. Then we have department consultants who get \$6,000 a year.

Mr. ANTHONY. Will you put in the record an itemized statement of the civilian instructors who are used in connection with vocational training, classifying them in accordance with the salaries they receive?

Mr. CRAMTON. I would like to have you include in that the names of the \$5,000 and \$6,000 men.

Col. REES. Yes, sir.

(The list referred to is as follows:)

Civilian educational specialists.

Name.	Previous position.	Station.
\$6,000 per annum:		
Dr. Guy Potter Benton...	President University of Vermont.....	Manila, P. I.
Joe Cook.....	President Mississippi State Normal School.....	Fort McPherson, Ga.
C. J. Ham.....	General auditor, Bangor & Aroostook R. R., Bangor, Me.	Camp Grant.
C. E. Hewitt.....	Dean of engineering, New Hampshire State College.	Governors Island, N. Y.
Dr. G. W. Hoke.....	Professor of geography, Miami University.....	Camp Grant, Ill.
M. F. Loomis.....	Chief of ordnance district, Cleveland.....	Do.
Dr. J. P. Marshall.....	Professor of music, Boston University.....	Do.
Dr. E. M. Ranck.....	Professor of veterinary medicine, Mississippi Agricultural and Mechanical College.	Fort Howard, Md.
W. H. Smith.....	President Mississippi Agricultural and Mechanical College.	Fort Sam Houston.
C. B. Waldron.....	Dean of agriculture, North Dakota Agricultural College.	Camp Grant, Ill.
P. B. Woodworth.....	Dean of engineering, Lewis Institute.....	Fort Sheridan, Ill.
\$5,700 per annum: Dr. E. G. Dexter.	Superintendent of instruction, Porto Rico.....	San Francisco.
\$5,400 per annum:		
Dr. S. E. W. Bedford.....	Professor of sociology, Chicago University.....	Governors Island, N. Y.
A. V. Ingham.....	Owner of Walker Art Co., Buffalo.....	Camp Grant, Ill.
A. B. McDaniel.....	Chief engineer, Construction Division, formerly professor of civil engineering, Union College.	Camp Dix, N. J.
\$4,800 per annum:		
H. D. Appleby.....	Supervising engineer, Bureau of Yards and Docks, Navy Department.	Camp Grant, Ill.
W. A. Ballou.....	Ballistic specialist, Ordnance Department.....	Camp Meade, Md.
G. W. Hobbs.....	Professor, University of Wisconsin.....	Camp Grant, Ill.
Dr. D. E. Rice.....	Secretary, school of science and tactics, Pratt Institute.	Do.

There are in addition:

- 2 men at \$375 per month.
- 2 men at \$390 per month.
- 9 men at \$350 per month.
- 10 men from \$400 to \$333.33 per month.
- 10 men from \$240 to \$275 per month.
- 6 men from \$200 to \$233.33 per month.

All of these specialists hold temporary appointments as professional experts, approved by the Civil Service Commission, on Form 375, which applies to professional, scientific, or technical positions. Their appointments are temporary, because it is recognized that as the Army becomes expert in administering the education work the services of many of these will be no longer needed.

• Mr. ANTHONY. General, you will recall that before the war the life of an enlisted man of the Army was devoted during the morning hours largely to military work and military training and the afternoons were divided, and probably equally divided, between necessary work about the posts and recreation. Since we have taken up this educational program, is it not a fact that the persons who are receiving this education practically devote their entire afternoons to educational work and that there is no time left for the enlisted man of the Army to do the necessary work about the posts and camps which he used to do in the old Army?

Gen. HAAN. I think all of that has been successfully overcome with a little experience.

Mr. ANTHONY. By the employment of civilians to do the work?

Gen. HAAN. No; I do not think we employ any more civilians to do the work now than we did before.

Mr. ANTHONY. The records show that the number of civilians has very largely increased since the war.

Gen. HAAN. Not in connection with combat organizations that we are speaking of now and whose training I have in charge.

Mr. CRAMTON. I asked the question the other day, and I think Gen. Lord is getting definite information about it, as to the number of civilians employed by the Army to do work that formerly in peace times was done by soldiers. It was intimated to me by a gentleman of high rank in the Army that the number might exceed 50,000.

Gen. HAAN. That is wholly outside of anything that has to do with the ordinary soldier's work, as it used to be done. We have now, for the first time in the history of our own Army, a reasonable amount of reserve supplies, and certain activities are necessary in connection with that. Then there are a lot of new activities which have come into the Army also, and in so far as soldiers are taking care of themselves, especially soldiers taking care of their own quarters and everything connected with them, I do not believe you have a single man more than you had before.

Mr. CRAMTON. It was intimated the other day that our fire departments are supplying men to protect soldiers from fire.

Gen. HAAN. That is not so. We have about ten times more building and equipment to protect than we are using. Manifestly you can not put a regiment in one of the cantonments and have it protect the entire cantonment against fire and take care of all the other things necessary to keep that equipment from deteriorating and also use that regiment for military training and other proper military activities. Nevertheless, that regiment takes care of its own area in which it lives. Let us assume that we wipe the rest of the camp out and just have the one regiment in the camp. Let us assume that we have that regiment at a reasonable strength, instead of having a skeletonized organization. That regiment would take care of itself just as well now as it ever did, and it would not ask for any civilians to help it out. But you can not take soldiers and make laborers of them also and expect them to be proficient as soldiers.

• Mr. ANTHONY. And also to send them to college.

Gen. HAAN. And also send them to school for the necessary training.

Mr. ANTHONY. The last figures I saw showed that at all our large Army posts, camps, and cantonments, there was one civilian employed

for every two enlisted men. Has that ever been brought to your attention?

Gen. HAAN. No; it has not, but I think the reason for that is, as I have indicated, that conditions are abnormal. Let us take the stations where we have normal buildings as before the war. We still have some of those where we have normal garrisons, in our coast defenses. I do not think you will find a man more than you had there before the war.

Mr. ANTHONY. One of your largest camps, one of the camps where you carry on your largest educational activity, is Camp Dix, in New Jersey.

Gen. HAAN. Yes.

Mr. ANTHONY. Can you give us an approximate idea of the number of enlisted men and the number of civilian employees that are there?

Gen. HAAN. No.

Mr. ANTHONY. It would be very interesting to have that in the record.

Gen. HAAN. The following is from official records.

Relative numbers of enlisted men and civilians at Camp Dix for November, 1920: Enlisted men, 9,403; civilians, 900. It will be noted that the ratio is 1 to 10. This is typical of the situation in cantonments where the number of civilians is high for the reasons stated above. The total for all cantonments for November, 1920, was: Enlisted men, 53,346; civilians, 4,336. This ratio is about 1 to 12, and not 1 to 2 as was suggested a little while ago.

Gen. HAAN. I would like to speak of one activity in connection with educational work, which is not directly military instruction. It is our elementary instruction we are giving to illiterate recruits. That will give you some small idea, I think, of the scope of the work that has been going on during the past year. We have five or six of these recruit educational centers established in which educational instruction is given to the men who enlist in the Army, under the authority of law, who are illiterate. The total number of those men at the present time in these centers is about 4,500, and in addition to that we have about 3,500 of the same class of men under instruction in stations outside of these five or six training centers; so we have about 8,000 men under instruction. The course of instruction there—that is the average time it requires to get a man from a condition of illiteracy to literacy so he can write letters and can understand orders and read signs on the roads and generally do the things that are necessary to make a man able to understand the daily news and things of that kind, so that he becomes in a sense self-educating—is about four months. The average number of men graduated from these elementary schools per month is 1,500, so that during the year at the rate we are instructing these men now we are graduating 18,000 men from illiteracy to literacy.

Mr. CRAMTON. What is the highest salary paid to any civilian in that class of work, and is that work almost entirely in the hands of civilians?

Gen. HAAN. It is under the supervision in each case of officers, but the methods of instruction and the direct instruction is very largely under civilians. At the recruit education center at Camp Dix the civilian supervisor gets \$3,600 per year. The civilian instructors receive from \$125 to \$175 per month. These are the

salaries paid in the New York public schools for the same grade of work.

Mr. CRAMTON. Do you not have officers and enlisted men in the Army, competent to teach men their A B C's, and competent to teach them to read and write?

Gen. HAAN. No; we have not. It requires the very highest grade of teacher, as you know, for kindergarten work. You know what that work is. It is the most difficult work a teacher has to do. I have taught school myself, and I know.

Mr. ANTHONY. Do you mean to say that it requires \$6,000 men to teach the three R's to enlisted men?

Gen. HAAN. No; the \$6,000 men are used for an entirely different purpose. You need general officers for certain things in the Army, and I hope they are of some use in the Army. But the general officer does not teach the soldier how to shoot a rifle. He could do it, I think—but he has more useful work to do. I do not employ \$6,000 men to do that kind of work because I can get men to do that work for less money. But I employ the higher grade men only in such numbers as I believe is necessary to keep this organization going. I mention that as one of the activities in all the work that is being carried on in the Army, and that is one of the things that is doubly useful. A soldier who is not literate can be taught to carry a rifle, he can be taught to do some other things that are useful, but he is much more useful if he is able to read a little and get information. Moreover, we find that these men are not stupid; they are, on the average, men who take very quickly to education. They are men whose opportunities have passed, whatever the reason may be. I suppose there are various reasons, and this is their last chance.

Mr. CRAMTON. You do not think they are entirely to be compared in their minds with the minds of the children in kindergartens?

Gen. HAAN. Not at all.

Mr. CRAMTON. And the instruction of them should not be entirely compared to the instruction of kindergarten children?

Gen. HAAN. No; but it is a very special kind of instruction that we have to give them, and it is work which is distinctly the work of experts, and it is very hard to do work during the first year in developing methods to instruct adults. I have a research school at Camp Grant, where I have selected, so far as I can, the very ablest people I could get in the United States to develop proper methods and courses of instruction for adults, and I will tell you what the result has been. The course of instruction that has been finished in the last four months in elementary education for illiterates covered four grades of the ordinary public school. The next year's course for adults covers about two grades more. In other words, men in this elementary work who have mature minds under the methods that have been developed by these \$6,000 experts are able in four months to make the first four grades of the ordinary common school education, in addition to their military work. That is the result of having men who know how to do those things.

Mr. CRAMTON. That is the first three grades. But their rate of progress as they go up the scale probably will not continue to be so rapid.

Gen. HAAN. Perhaps not quite so rapid, but I think in two years they can go through a course equivalent to the sixth grade work.

I think Dr. Mann and others will be able to give you that information.

Mr. CRAMTON. It will be a long time, even under these \$6,000 experts before you will be able to take enlisted men and give them the last three years of a high school course in one year, in addition to their military duties.

Gen. HAAN. I do not ever expect to go beyond the eighth grade. The sixth grade education is the average education of the American people, and I do not feel that it is necessary to help a man much beyond the average education of the people of the United States.

Mr. CRAMTON. A man who is illiterate, not because he is feeble-minded, but a man with a normal mind does not require any long planning of high-priced experts to enable him, when he is given the opportunity, to get the first three grades, which are very elementary.

Gen. HAAN. They get them very quickly under the plan we have put into effect. They have, however, not succeeded in getting much of anything without somebody to help them.

Mr. CRAMTON. Certainly.

Gen. HAAN. I should think if it was such a simple matter as that they would have succeeded in getting that much of an education before.

Mr. CRAMTON. They would, if they had had an opportunity. It is more a matter of having the opportunity and an efficient instructor than to have \$6,000 experts to formulate a plan.

Gen. HAAN. No; I believe the most important work of all is the work of the expert in formulating the plan.

Mr. CRAMTON. Is not that expert able to formulate a plan that an intelligent enlisted man can carry out with these same illiterates?

Gen. HAAN. If he is intelligent enough and has had experience enough, I do not care whether he is an enlisted man or not. I think any man who has intelligence enough and who has had experience enough to do it could do it, whether he wears a uniform or not.

Mr. CRAMTON. It is shocking to me to know that officers can teach a future General Staff officer at West Point and at the military colleges, but that they can not teach these illiterates to read and write.

Gen. HAAN. They are not trained for that purpose.

Mr. CRAMTON. To what extent is the teaching corps at West Point civilian?

Gen. HAAN. They only have two or three civilians there at this time.

Mr. CRAMTON. They are minor instructors, are they not?

Gen. HAAN. We have a professor of languages there who is a civilian. We also have some instructors in foreign languages.

Mr. CRAMTON. They are limited in number?

Mr. ANTHONY. There are three of them, I think.

Gen. HAAN. Yes.

Mr. CRAMTON. You are able to secure officer personnel as instructors for the cadets?

Gen. HAAN. While we have a very large list to select from for that one school, we have some difficulty in getting satisfactory men. Our professors are there permanently, but our instructors go there for periods of four years. During the first year the instructor's work is mostly learning how to teach.

Mr. CRAMTON. Is there in connection with this program any sort of normal school provided for the training of officers and enlisted men so they can teach?

Gen. HAAN. Yes. We had that kind of a school last year, but it was mainly for instructing officers as directors so that we could secure uniformity throughout the service. We had a normal school at Camp Grant last year where we instructed officers, and also civilian school-teachers during their summer vacation, when the regular educational work was not going on.

Mr. ANTHONY. Are not these men largely civilian instructors?

Gen. HAAN. No; I would say not.

Col. REES. Out of the whole number at the school there were more officers and enlisted men. As far as the number of teachers is concerned there were more civilians.

Mr. ANTHONY. How many teachers did you assemble at this Camp Grant school?

Col. REES. About 350.

Mr. ANTHONY. So you found you had to educate teachers for the work, even after you hired them?

Col. REES. To train them in the special kind of training the soldier should receive.

Mr. CRAMTON. Were they the \$1,500 men or the \$5,000 men?

Col. REES. They were paid from \$1,500 to \$2,000.

Mr. CRAMTON. Were they all \$1,500 or \$2,000 men?

Col. REES. I think they were.

Gen. HAAN. They were of all grades.

Mr. CRAMTON. I am speaking of the students.

Col. REES. The students were the \$1,500 and \$2,000 men.

Mr. ANTHONY. Did the Government pay all the expenses at that school of instruction?

Col. REES. Yes, sir.

Mr. ANTHONY. They were assembled from all over the country there?

Col. REES. Yes, sir.

Mr. SLEMP. How long does it take you to train an illiterate enlisted man to read and write and to read the signs you referred to, and the newspapers? What is your experience along that line?

Gen. HAAN. The average time is about four months.

Mr. SLEMP. If you limit your activities to getting these boys in that condition, what effect would that have upon your personnel which you would have to employ and the expense that would be entailed? Suppose you are just going to do that and not much more?

Gen. HAAN. I do not know. I am unable to say what that single activity would take. That is now one of the many activities we are engaged in.

Mr. SLEMP. After you have him in this improved condition in four months, at what stage of development do you finally expect him to arrive?

Gen. HAAN. We expect him to take two years educational work and in his last year he will be learning a trade.

Mr. SLEMP. Would that trade have any relation to fighting?

Gen. HAAN. Yes, that trade has a relation to fighting because it is in the line of technical work necessary in time of war.

Mr. SLEMP. What trades do you propose to teach men in the Army?

Gen. HAAN. A man who takes illiterates training under the law. or under the regulations which the law provides shall be made. has no selection. For men who are literate, the law requires that the instruction shall be so given as to make him a better equipped man at the end of his enlistment, and be better able to help himself; in short, to be of more value to himself and to the community at the close of his enlistment than he was at the beginning. He has under this provision rather a wide range of selection. In that connection I might say they are rather easily handled when they come in. When they are enlisted they are taken in hand and examined to see what educational qualifications they have, and they are advised by men who take an interest in them, their commanding officers and various others who come in contact with them, as to what is best for them to take. Manifestly, a man can not take up electricity who knows nothing about the elementary instruction needed before he can take up that subject. So the same thing is true with other professional trades that require, preliminary to the taking of the course, some elementary education. That is all explained to these men in as much detail as we can explain it.

Mr. ANTHONY. Is their taking of this education compulsory or voluntary?

Gen. HAAN. The education of illiterates is compulsory.

Mr. ANTHONY. After four months—

Gen. HAAN (interposing). It is voluntary after that time.

Mr. SLEMP. What percentage of the men try to make the best of the opportunities offered to them?

Gen. HAAN. In the whole Army?

Mr. SLEMP. You have a regular educational institution now, part compulsory and part voluntary, and you have a heavy overhead. I want to find out to what extent these men are availing themselves of this Governmental aid.

Gen. HAAN. It is somewhat different in different places. But we have figures showing the average of the whole Army. I would like to refer you to a note which I have received from Gen. Summerall, in which he speaks of the attitude of the soldier to the trade school. In that camp there is an average of 5,000 men now under instruction out of a total of 9,403.

Gen. Summerall says:

The attitude of the soldiers of the command toward the schools may be seen from the fact that 3,025 are now voluntarily enrolled, and the number is constantly increasing as facilities can be provided. In addition, the recruit educational center for illiterates and men of foreign birth who can not speak the English language contains nearly 2,000 men, who are being taught the fundamentals and the knowledge that every man should possess for citizenship. These schools stand to-day as a model university for the poor boy who never had a chance and for the foreign born who has come to the New World to benefit by our beneficent Government. The very presence of these men shows that they have within them the power of vision for improvement and of faith in themselves and in the Army to realize their ambition for a broader and a more useful life in the race that is before them. There need be no fear of unproductive man power or of disloyal agitation among the men whose minds have been elevated, whose intelligence has been increased, and whose hands have been given skill in some useful occupation under the influences that exist in the educational and vocational schools in the Army to-day.

Mr. SLEMP. So there are more than 50 per cent availing themselves of that opportunity?

Gen. HAAN. Yes.

Mr. ANTHONY. How far does your plan contemplate carrying these men in educational work? The bulk of them are being instructed in elementary work?

Gen. HAAN. Yes.

Mr. ANTHONY. How high do you propose to go in giving them an education?

Gen. HAAN. We can not go——

Mr. ANTHONY (interposing). That is, outside of the trades?

Gen. HAAN. We can not go very high because we can not keep men in long enough for that purpose. I would say that for the ordinary elementary education, with the exception of a few classes, comparatively small, it usually is confined to the common-school branches. I am not very sure of that.

Col. REES. The general education is prepared for adults. We have an illiterate course and then we have a first and second course in general education which is a basic citizenship course, and which covers a six months' period, and then we go into further courses on his industrial and social relations. We are not sending men through grades as in the public schools.

Mr. ANTHONY. In this propaganda that they get out in regard to education in the Army they speak about an Army university.

Col. REES. It is the very finest sort of education for a young man who has not had the advantages of an education previously. In the course in citizenship he has a consideration of the vital problems of his early life and he gets all sorts of instruction in arithmetic, geography, and history.

Mr. ANTHONY. My viewpoint is that it is entirely practical to instruct a man in trades in the Army and instruct him in the elementary studies, the three R's, but I think we are going beyond that and we are taking on a class of work that is paralleling the work of civilian institutions, which is entirely beyond the province of the Army.

Gen. HAAN. I entirely agree with you that the work in the Army should not duplicate the work of civilian schools.

Mr. CRAMTON. General, is all this vocational training in the Army being covered by your statement here, or is there any other branch coming in which will send boys to college?

Gen. HAAN. It was my intention not to talk so long as I have talked.

Mr. CRAMTON. Your statement has been very interesting and instructive.

Mr. ANTHONY. We would like to have you prepare quite a complete statement for the record, with an itemization of the expenditures under the proposed appropriation and give rather full information about it, because the House is going to inquire very rigidly into this matter of Army education.

(Following is the statement submitted by Gen. Haan:)

ADMINISTRATION AND POLICY OF EDUCATION AND RECREATION BRANCH

In accordance with the general War Department policy, the administration of education and vocational training in the Army has been completely decentralized. The War Department issues only general instructions, makes an allotment of funds and places the responsibility for results on corps area and department commanders.

Although this year's operations have been somewhat disturbed by the change on September 1 from an organization of the continental limits of the United States into six departments to an organization into nine corps areas, the following statement is

the actual allotments of the vocational training appropriation to the field will indicate how the funds have been handled by the War Department:

Northeastern Department.....	\$56,886	
Eastern Department.....	469,746	
Southeastern Department.....	220,430	
Southern Department.....	367,974	
Western Department.....	219,101	
Central Department.....	537,531	
Panama Department.....	73,329	
Hawaiian Department.....	48,886	
Philippine Department.....	192,873	
Germany Department.....	68,000	
Recruit education centers.....	398,200	
		\$2,652,956
Civilian consultants, corps area headquarters.....	76,000	
Travel and subsistence of civilians.....	150,000	
Reserve.....	621,044	
		847,044
Total.....		3,500,000

When the change from departments to corps areas was made, proper adjustment of funds was made, based on the enlisted strength of the several areas. When large bodies of troops are moved from one area to another, the moving organization carries its funds with it.

To meet special requirements arising both from the movement of troops and from the change from department to corps organization, additional allotments from the reserve have been made to corps area commanders in relatively small sums to the amount of \$409,000, leaving at present an unallotted balance of \$212,044. Of this, \$50,000 is held in reserve by order of the Secretary of War, and can not be allotted until released by him, leaving \$162,044 at present available.

There are at present on file in my office urgent requests from corps area and department commanders for additional allotments required to furnish facilities for instructing the men who have actually enrolled for school work. The total amount thus requested is \$278,770. Since the available reserve is now \$162,000, and additional requests for funds are still coming in, it is evident that all supplementary requests can not be granted.

Before making up the estimates for the fiscal year 1922, corps area and department commanders were asked to submit estimates for their respective commands. These were received last August and September before the schools had opened. Since the actual enrollment in several of the areas has been larger than was estimated, these figures are too low. Unless the appropriation for 1922 supplies more money than these estimates call for, it will not be possible fully to make good the obligations incurred by promises of education in enlistment contracts executed with full authority of the statutes. They indicate, however, the relative demands of the several areas, and hence, roughly, the manner in which the distribution of the appropriation for the coming year must be made.

First Corps Area.....	\$248,500	Ninth Corps Area.....	\$544,857
Second Corps Area.....	1,392,700	Germany.....	163,756
Third Corps Area.....	807,142	Hawaii.....	173,350
Fourth Corps Area.....	695,609	Panama.....	152,517
Fifth Corps Area.....	194,465	Philippines.....	180,375
Sixth Corps Area.....	366,410		
Seventh Corps Area.....	262,397		6,291,675
Eighth Corps Area.....	1,109,597		

Reports from corps area and department commanders as to the suballotment of funds to camps, posts, and stations in their respective areas as of January 1, 1921, have been called for. These reports, together with those of enrollment and attendance, enable the War Department to check up on the efficiency of administration. In this matter frequent reports, both from the Inspector General and from inspections by the corps area commanders and the civilian consultants, enable the War Department to keep close watch over results achieved.

In addition to the above details of the administration of education and vocational training, I desire to raise several questions of larger policy connected not only with education, but also with two other closely related activities which are under my general supervision.

The defense act of June 3, 1916, authorized three new training activities in the Army, namely, vocational training (sec. 27), the Reserve Officers' Training Corps (secs. 40-53), and training camps (sec. 54). The significance of these authorizations was not fully appreciated by the Army at that time, so that relatively little was done before the war to put them into effect. The war impressed their importance on the Army so that they are now recognized as fundamental factors in maintaining the Military Establishment.

Their importance has been further enhanced by the Army reorganization act of June 4, 1920. In fact, it is now clear that without them the Army can not effectively realize the congressional mandate of that act, namely, to organize the National Guard and the Organized Reserves as integral parts of the Army of the United States and to maintain those military organizations necessary to form the basis for a complete and immediate mobilization in the event of an emergency.

The reasons for this are obvious. A complete and immediate mobilization is possible only if the people and the Army cooperate to this end as they did during the war. Hence in time of peace, the Army must be an organization the people are proud of and participation in Army activities must become an eagerly sought privilege and not an onerous obligation. This result can be accomplished if the people understand the Army and the Army understands the people. Education and vocational training in the Army, the Reserve Officers' Training Corps, and training camp for civilians are three powerful agencies for bringing about the needed mutual understanding that will make complete and immediate mobilization possible.

The contribution which each of these agencies must make to the desired result is distinctive and can not be made by other agencies provided by the statutes. Thus education and vocational training not only contribute directly to military efficiency but they also furnish the opportunity for blending the military and the civilian points of view in the creation of a more effective training program than either alone achieves. This combined system is rapidly uniting in the Army schools the best elements of civilian education with the best features of military training. The soldier and the scholar are there reaching the required common understanding which is basic for the building of a citizen army.

In addition, the vocational training is making the Army a productive asset to the country in time of peace. During the month of November at Camp Travis the soldier classes in automotive work, in plumbing, and in carpentry did repair jobs and new work that would have cost the Government \$14,000 if done by civilian labor. The entire program is being developed as far as is practical on a basis of productive effort. Apart from the money saved, the value of this in instilling skilled men with the productive spirit is important.

The first contribution of the Reserve Officers' Training Corps to mutual understanding between soldier and civilian is the converse of that of education in the Army. Here the military point of view is injected into civilian institutions and hence combat methods of training are developing in schools and colleges. As a result college training is growing stronger. In the second place, the Reserve Officers' Training Corps opens numerous doors in addition to West Point for winning a commission in the Army and this enables the Army to secure a wider range of selection from which to discover men of real military talent for the permanent personnel of the professional military establishment.

The contribution of the training camps for civilians is analogous to that of the Reserve Officers' Training Corps, but among a different group of the population. These camps will demonstrate to the public at large the value of military training as an element in building manhood and also will offer a wide field of selection for the discovery of military talent which may be developed to the great advantage of the permanent establishment.

Further advantages of all three of these activities are that they make recruitment easier and hence less costly and that they secure a better grade of recruit.

The above facts prove to me that these three agencies are of the utmost importance in carrying out the new military policy defined by Congress in the act of June 4, 1920. If they are adequately supported, they will enable the Army to make rapid progress in realizing the new policy in practical form. Unless the Regular Army remains as it was during the war a real part of the national life, closely bound up with civilian activities, the complete and immediate mobilization of the citizen army will never be practicable. The avenues of mutual understanding and cooperation between the people and their Army must be kept open.

The amount of the appropriations for these three activities does not as yet depend on the size of the Army. For the Reserve Officers' Training Corps and the training camps it is obvious that the size of the appropriation determines the number of men to whom these opportunities can be offered. This is at present also true of education:

and vocational training in the Army. There are at present more men enrolled for this work than can be given instruction with the facilities afforded by the present appropriation. Experience shows that more than half the enlisted men desire education and vocational training. This means at least 75,000 men, even if the strength of the Army is reduced to \$150,000. With rigid economy the appropriation requested this year will barely suffice to give the promised training to 75,000 men.

Mr. CRAMTON. Col. Rees has spoken of the things that are not done, but I would like to know whether there is another branch coming in with a large educational program, in addition to what Gen. Haan has been discussing.

Gen. HAAN. No; this covers all the vocational training. I am here to cover all of the vocational training, unless you want to hear the subordinate officers in the recreational and educational branch.

Mr. ANTHONY. Do you have charge of the educational work in the technical branches of the Army? Does your organization supervise the training, for instance, of telegraphers and electricians in the Signal Corps, of the men in the Engineer Corps, or in the Quartermaster Corps?

Gen. HAAN. No, sir; the special service schools have that work. I have charge of those; or, rather, my division has charge of those only to this extent, to see that the product of those schools are qualified to accomplish the results required in the general make-up of the Army.

Mr. ANTHONY. Then this appropriation applies solely to the education of the enlisted men in the line of the Army?

Gen. HAAN. No; we have also vocational schools in the noncombatant branches, but they are comparatively small.

Mr. ANTHONY. For instance, is any part of this appropriation going to maintain an automobile and truck school?

Gen. HAAN. None of this appropriation.

Mr. ANTHONY. Or the electrical schools carried on by the Signal Corps?

Gen. HAAN. No, sir.

Col. REES. We do help them on the problem of general education, but not on their technical, vocational side.

Gen. HAAN. Their technical schools are a part of the military training required, and the men in those branches must become expert on those subjects.

Mr. CRAMTON. To what extent are men separated from their military organizations to secure the training you have discussed?

Gen. HAAN. That is done only in a very few cases. Illiterates are sent to recruit education centers before they are sent to their organizations at all, so that when they do join their organizations they may not be at that great disadvantage that an illiterate always is.

Mr. CRAMTON. This training for illiterates is given at the recruiting centers?

Gen. HAAN. This training for illiterates is not given at the recruiting stations. They are sent direct from the recruiting stations to the recruit education center and from that center are sent, when they have completed the course, to their organizations.

NUMBER OF MEN IN SCHOOLS.

Mr. SLEMP. Have you put in the record the number of enlisted men in the schools?

Gen. HAAN. I can do that.

Mr. SLEMP. I would like to have you put in the record a statement showing the number of enlisted men in the schools taking the four months' training and the total number of enlisted men in your schools.

Gen. HAAN. I will put that in the record.

ENROLLMENT IN EDUCATION AND VOCATIONAL TRAINING IN THE ARMY
AS OF OCTOBER 31, 1920.

The number of soldiers who are taking the four months' training as illiterates is 8,000, and the total number of men enrolled in the schools is 54,500. This total is exclusive of men in the service who are receiving vocational training as a part of their military duty. The total number of men under this class, according to the last report, was 49,737, making a grand total of soldiers receiving educational and vocational training of 104,237.

Mr. SLEMP. I suppose about 50 per cent of your expenses are for salaries to civilian teachers. Would that be about a correct estimate? You might insert a statement about that in the record.

EQUIPMENT AND SUPPLIES.

Gen. HAAN. The largest single item is for equipment and supplies, and that item is given in the estimate as \$1,794,500. The details of that I am unable to explain. Of the large number of activities under my supervision, that is only one of them, and I can not go into the details about that. I wish to say, however, that this estimate has already been reduced by approximately 50 per cent, by direction of the Secretary of War. The original estimate for carrying on the entire education program, as prepared by the education and recreation branch of my division, was about \$11,500,000.

Mr. ANTHONY. Is this estimate of \$5,729,500 based upon an Army of 280,000 enlisted men?

Gen. HAAN. I do not know about that. The original estimate of \$11,500,000 was based upon an Army of 280,000 men, was it not?

Col. REES. Yes, sir.

Mr. ANTHONY. Was this subsequent reduction also based upon the same number of men?

Col. REES. That estimate will determine the number of men who can be given instruction, rather than being based upon the number of men there might be in the Army.

Mr. CRAMTON. I wonder if you can not give us a statement in the record that will show to what extent this training operates to separate men from their military organizations; to what extent they are sent to a school or sent for instruction away from their organizations?

Gen. HAAN. I was trying to give you that when I was interrupted. Very few of them are sent away from their organizations for the training. It is practically all given in the places where they are stationed.

Mr. CRAMTON. Suppose, for instance, that a boy is in the service at Bolling Field. There is no opportunity there for him to attend school, is there?

Gen. HAAN. No; but he is not sent away for schooling. We have certain services which are schools in themselves, you might say. A man is passed through a school which is a trade school in itself. Practically all of our men in connection with aviation have to learn a trade in order to know their business.

Mr. CRAMTON. So that a man in that branch of the service, say, at Bolling Field, only has an opportunity for his education in the line of that work?

Gen. HAAN. We have, in some places where we have such activities, gone so far as to establish night schools so that they can go to school at night, where they are employed all day in work that requires their presence. We have some of those night schools. We have, for example, some vocational schools in connection with some of our Motor Transport schools where men want to learn something else, and we have established small night schools in cases of that kind. As a rule, there are not many of those.

Mr. ANTHONY. That is the only part of the work that the vocational-training branch undertakes in these technical courses?

Gen. HAAN. Yes; that is generally all of it.

Mr. SLEMP. Ordinarily, how large are your classes?

Gen. HAAN. You mean the classes for instruction purposes?

Mr. SLEMP. Yes.

Gen. HAAN. I think it depends upon what they are instructing them in. Perhaps Dr. Mann could give you some light on that subject.

Dr. MANN. Classes under eight are prohibited. They are not allowed to have classes of a less number than eight. There are usually from 20 to 25 in the classes, as a general average.

SALARIES OF CIVILIAN EMPLOYEES.

Mr. ANTHONY. Gen. Haan, in going over the items that make up the estimates for this appropriation which you request, I see you are asking for \$2,990,000 for the salaries of civilian employees. You are asking for 15 educational specialists and consultants at \$6,000 a year each; for 20 development specialists at \$5,000 a year each, and you are asking for 1,400 teachers and instructors at \$2,000 per annum, making a total estimate for salaries of \$2,990,000. I want to ask you whether the salaries paid to these instructors are the salaries that prevailed during the current fiscal year, or are you providing for increases?

Gen. HAAN. I think generally they are the same.

Mr. CRAMTON. What has become of the \$1,500 man?

Gen. HAAN. I do not know. I do not think we have many.

Mr. ANTHONY. You have not got any, according to this statement.

Dr. MANN. The average salary is \$2,000. The actual salaries paid ranges from \$1,500 to \$3,600.

Mr. ANTHONY. I would like to have a little larger itemization of the civilian employees than you have presented.

Col. REES. We will get that for you.

Instructors in education and vocational training paid from appropriation "Vocational training of soldiers, fiscal year 1921," including instructors on duty at the recruit educational centers, as of Jan. 11, 1921.

[The report of instructors does not include all instructors employed in Eighth Corps Area, Germany, Panama Canal Department, or Philippine Department, since detailed reports have not as yet been received.]

Monthly salary.		Monthly salary.	
4 instructors, at.....	\$350	32 instructors, at.....	\$170
1 instructor, at.....	325	14 instructors, at.....	160
17 instructors, at.....	300	135 instructors, at.....	150
19 instructors, at.....	275	8 instructors, at.....	145
34 instructors, at.....	250	1 instructor, at.....	140
1 instructor, at.....	235	14 instructors, at.....	135
37 instructors, at.....	225	1 instructor, at.....	130
6 instructors, at.....	220	76 instructors, at.....	125
4 instructors, at.....	210	3 instructors, at.....	120
96 instructors, at.....	200	2 instructors, at.....	115
2 instructors, at.....	190	47 instructors, at.....	100
8 instructors, at.....	185		
22 instructors, at.....	180		
71 instructors, at.....	175		
		656	

Average monthly salary \$175.22
 Average yearly salary 2,102.64

This table is a summary of the reports already received by The Adjutant General. The distribution of numbers of instructors over the various salaries is typical of conditions throughout the Army, and will not be materially changed when the missing reports are received.

Mr. CRAMTON. Is this \$6,000 salary and the \$5,000 salary an average?

Dr. MANN. No; the \$6,000 is a fixed maximum and the \$5,000 an average.

Mr. CRAMTON. Those are fixed?

Dr. MANN. Yes; the maximum is fixed.

Mr. CRAMTON. What is the lowest salary given to any teacher or civilian instructor?

Col. REES. I could not give you that offhand. I know of part-time teachers who are paid as low as \$50 a month, but for full-time teachers the lowest salary is \$100 a month.

Mr. SLEMP. Do these specialists give all their time to this work?

Col. REES. They do.

Mr. SLEMP. Do you have any consultants who do not give all their time to this work?

Col. REES. We have consultants in corps areas and department headquarters, one to each.

Gen. HAAN. We have some advisors. We have an advisory board here in Washington on which we have a number of eminent educators who are serving without any salary at all. When it is necessary to convene this advisory board we find ways and means to pay their expenses.

Mr. CRAMTON. In our former discussion reference was made to the bulk of these instructors receiving from \$1,500 to \$2,000 a year. Now we learn that the \$2,000 figure is an average, which means that a large number of them must receive considerably in excess of that amount. Have you not at hand now a statement as to the salaries which are received and the instructors at each salary?

Col. REES. That is very difficult to get for this reason: The salary cost in different parts of the country differs. The employment of

teachers devolves upon the commander at each camp and post, and the employment is made through the nearest civil service district. For that reason it is very hard for us to itemize or to classify them more specifically than this—I will not say more now; I think we can get a more specific classification.

Mr. CRAMTON. Is it not quite easy for you to state how many teachers you have to-day at \$1,500 a year, how many you have at \$2,000 a year, and how many you have at \$3,000 a year?

Col. REES. Our reports call for the average amount paid for each corps area.

Mr. CRAMTON. Does not your headquarters have definite, positive information as to your teaching staff?

Col. REES. We have the number of teachers and the average salary which is paid.

Mr. CRAMTON. Then at each corps area headquarters there is some one who has authority, *carte blanche*, to employ teachers at any salary he sees fit?

Col. REES. No; the Civil Service Commission has issued its regulations governing the salary.

Mr. ANTHONY. These teachers are all under civil service?

Col. REES. Yes, sir.

Mr. CRAMTON. Are those regulations extensive?

Col. REES. No.

Mr. ANTHONY. Did you not employ all your teachers and then cover them under the civil service?

Col. REES. The employment was begun with the permission of the Civil Service Commission from the very beginning. There was some delay in getting out the regulations, but as soon as those regulations were out—

Mr. ANTHONY (interposing). They were covered in, were they not?

Col. REES. They were required to conform to the regulations.

Mr. CRAMTON. Where did the Civil Service Commission get authority to fix salaries in this lump-sum appropriation? Were they requested to do it by your organization?

Col. REES. It was upon recommendation from the War Department.

Mr. CRAMTON. The War Department secured the men and fixed the salaries, and having done that, asked the Civil Service Commission to cover them into the civil service. As a matter of fact, the salaries were fixed by the War Department, were they not?

Gen. HAAN. No; the salaries were not fixed by the War Department, otherwise the War Department would know what they are. This is a decentralized service. We make an allotment of a certain amount of money to the corps commanders with which to carry on their work. The kind of employees that are to be used are secured from the classified civil-service list. I do not know myself what we could do in California on the classified civil-service list. The condition is not the same here as it is out there. We do not get the same kind of man for the same price.

Mr. CRAMTON. You know there is a great deal of criticism in Congress about lump-sum appropriations. You are asking for nearly \$6,000,000 in a lump sum. Then in addition to that we find that the authorities at the head of the service in Washington who come before Congress and ask for such an appropriation have not a firm grasp on

the situation and can not tell just how that money is being spent. That increases the distrust of the House, and we will be in an embarrassing position if somebody asks questions which we have been asking here to-day. We are told that the salary is fixed in California, for instance, and nobody in Washington knows how much it is.

Col. REES. Our reports give the average salaries paid for teachers in the nine corps areas.

Mr. CRAMTON. It would not be very difficult for your report to state how much each teacher is getting, and it would be much safer.

Col. REES. That is shown in the above statement.

Mr. ANTHONY. Are there any other appropriations made in the Army appropriation bill out of which you get money to carry on this work?

Gen. HAAN. I believe not.

MILEAGE.

Col. REES. Except that which is contingent on mileage. Any officer who travels specifically on this duty to make an inspection of schools gets his mileage out of the appropriation for the mileage of the Army.

Mr. ANTHONY. How do you pay for the transportation of your specialists and consultants?

Col. REES. That is provided for in this appropriation.

ADVERTISING.

Mr. ANTHONY. How was the expense of the advertising—that is, what you might call propaganda work—taken care of?

Gen. HAAN. We have done none of it.

Mr. ANTHONY. We were informed the other day that there had been allotted out of other funds in this bill a total of \$789,000 for the purposes of advertising in newspapers and periodicals for recruits in the Army, and the bulk of that advertising pertained to the vocational and general educational work of the Army, and that there had been expended already out of the funds appropriated for this fiscal year \$270,000 for that class of advertising.

Gen. HAAN. That has nothing to do with the educational work itself. That is explaining what is done in the Army for the purpose of recruiting, as has been the practice for many years past. The educational activity seems to be popular but the money so spent is for recruiting.

Mr. ANTHONY. It was almost entirely devoted to the furtherance of that work.

Gen. HAAN. I think it is probable that a very large percentage of the men who have enlisted during the past six months have enlisted because of the educational opportunities in the Army, and I know from my own contact with the various civilian organizations throughout the country—church organizations and other activities that are doing what they can to raise the educational standards of the people of the United States—that the reaction from these has been most favorable to the educational work in the Army.

Mr. ANTHONY. Do you think that the large multitude of recruits available for the Army at the present time is due to the educational advantages and not to the economic conditions of the country?

Gen. HAAN. I think undoubtedly both have something to do with it. I have tried to get information through the recruiting service by questioning the men who enlist as to the causes of their enlistment, and I find that there is a considerable percentage very much interested in the educational work.

At the suggestion of Mr. Anthony, I would like to have this statement of recruits accepted during October, 1920, put in the record, showing the percentage asking for vocational and educational training. (The statement referred to is as follows:)

Recruits accepted during October, 1920.

District.	Total.	For educational and vocational training.	District.	Total.	For educational and vocational training.
Aberdeen.....	125	90	Louisville.....	199	52
Albany.....	381	164	Milwaukee.....	263	142
Atlanta.....	515	429	Minneapolis.....	379	321
Baltimore.....	322	109	Nashville.....	241	193
Birmingham.....	264	200	Newark.....	246	209
Boston.....	553	21	New Orleans.....	152	110
Buffalo.....	258	40	New York City.....	1,990	1,803
Chicago.....	707	47	Oklahoma City.....	237	74
Cincinnati.....	288	83	Omaha.....	246	221
Cleveland.....	503	96	Philadelphia.....	688	86
Columbus.....	198	52	Pittsburgh.....	335	90
Dallas.....	163	92	Portland, Me.....	277	68
Denver.....	247	41	Portland, Oreg.....	250	86
Des Moines.....	185	130	Providence.....	248	243
Detroit.....	502	201	Richmond.....	319	75
El Paso.....	153	65	St. Louis.....	538	489
Grand Rapids.....	234	150	Salt Lake City.....	191	92
Greensboro.....	310	224	San Francisco.....	590	292
Harrisburg.....	444	383	Savannah.....	137	91
Houston.....	246	71	Scranton.....	93	42
Huntington.....	218	81	Seattle.....	278	100
Indianapolis.....	505	172	Spokane.....	146	134
Jackson.....	134	100	Springfield, Ill.....	229	170
Jacksonville.....	169	99	Springfield, Mass.....	257	155
Joplin.....	138	99	Syracuse.....	176	154
Kansas City.....	247	41	Toledo.....	140	41
Knoxville.....	134	78	Wichita.....	129	66
Little Rock.....	147	102			
Los Angeles.....	324	31	Total.....	17,579	9,090

$\frac{9090}{17579} = 51.5$ per cent enlisted for education during October, 1920.

CONSTRUCTION AND REPAIR.

Mr. ANTHONY. You are asking for \$400,000 for construction and repair. What items of construction does this embrace?

Col. REES. In order to furnish adequate classrooms and shops for Army educational work a minimum of 100 square feet of floor space per man under instruction at one time will be required. Assuming that we have 100,000 men under instruction and one-half, or 50,000, are simultaneously being instructed, a total of 5,000,000 square feet of floor space will be required. The minimum cost of new construction is \$2.50 per square foot of floor space, or a total of \$4,500,000 for the necessary floor space for our educational work. Some of this floor space is already available. Additional floor space may be provided by alterations and repairs in temporary buildings at an estimated cost of 10 cents per square foot of floor space. This

will be at an annual cost for floor space equivalent to less than 3½ per cent on the estimated cost of new construction for the floor space utilized.

Mr. ANTHONY. It is your intention to largely utilize the existing buildings at Army camps?

Col. REES. Yes, sir; but as you know it will require to a large extent the moving and salvaging of buildings for use in other places, in the repair of foundations particularly to hold the machinery, and this estimate is to cover that sort of expense, and it is not for real new construction.

EQUIPMENT AND SUPPLIES.

Mr. ANTHONY. You are asking for \$1,794,500 for equipment and supplies. How do you analyze that estimate?

Col. REES. Assuming that there are 100,000 men under instruction this allows but \$18 for each man. A minimum of \$50 per man is required for similar work in civilian educational institutions.

Mr. ANTHONY. Would you have 100,000 men under instruction in an Army of 150,000 men?

Col. REES. Mr. Chairman, that depends upon how we can develop this work. If we have enough money to develop it as we want to develop it, I think it is Gen. Haan's, and I know it is the thought of a number of us, that volunteering for education in the Army will consist in signing the enlistment papers. Now we can not do that because we have not the facilities with which to do it, so I think that even with 150,000 men in order to properly develop this program we should be prepared to teach 100,000 men.

Mr. ANTHONY. What new equipment will you have to buy?

Col. REES. It is hard to itemize it, but as I testified last year we did get quite a large amount of surplus war equipment which we used in educational training. That equipment is very much unbalanced because there are a great many items needed in educational training which were not in the surplus supplies.

Mr. ANTHONY. You have all the lathes and tools of that kind which you need, have you not?

Col. REES. Of certain kinds, yes; but not of all kinds needed in a well-equipped shop.

Mr. ANTHONY. You are asking for quite a large sum of money for equipment and supplies, nearly \$2,000,000?

Col. REES. Yes, sir; of course, that amount will be reduced as we get supplies.

Mr. ANTHONY. What are some of the items you want to purchase out of this amount?

Col. REES. We figure this on a basis of \$18 for the requirements for each man.

Mr. ANTHONY. It is not based on the items you want to buy?

Col. REES. It was based on a survey made by an expert as to the articles needed to fill out the equipment we now have.

Mr. ANTHONY. It is rather a guess on the part of that expert.

Col. REES. Based on his survey.

Mr. ANTHONY. I would like to have you put in the record an itemized statement of the principal articles you desire to purchase with that amount of money.

Col. REES. Yes, sir.

(The statement referred to is as follows:)

Following is the itemized list requested. This list is made up from requisitions received from the camps, posts, and stations indicated, which it has been impossible to fill from surplus property or purchase as sufficient funds are not available for the present fiscal year. It will be seen that the amount estimated for and requested in the item for equipment and supplies is conservative in that this list represents requisitions received up to date, and which are being constantly received. The amount of equipment and supplies requested will probably reach, prior to June 30, 1921, double the amount indicated on the following list:

Army vocational training equipment requested which can not be supplied from surplus to date, Jan. 15, 1921.

Article.	Amount.	Cost.	Camp.
Acid:			
Nitric.....gallons..	10	\$20.00	Lewis.
Hydrochloric, C. P.....do....	2	4.00	Do.
Hydrochloric (HCL).....do....	200	300.00	Do.
Sulphuric, C. P.....do....	10	20.00	Do.
Muriatic.....do....	10	20.00	Do.
Sulphuric, C. P.....do....	20	40.00	Devens.
Adding machine.....	1	350.00	Ross Field.
Adding machine (Burroughs).....	1	350.00	Vancouver Barracks.
Adding machine.....	5	1,750.00	Grant.
Alcohol, grain.....gallons..	5	12.50	Lewis.
Alum.....pounds..	5	2.00	Do.
Alloy, aluminum No. 12.....do....	1,000	300.00	Grant.
Aluminum, reds.....do....	500	150.00	Do.
Ammeters and voltmeters.....	3	330.00	Fort Washington.
Ammeters.....	1	65.00	Fort Riley.
Do.....	2	130.00	El Paso.
Do.....	50	3,250.00	Various camps.
Amplifier, receiving.....	1	150.00	Fort Wadsworth.
Annunciators, 6-point.....	6	90.00	Meade.
Anvils:			
No. 34.....	2	16.00	Fort Thomas.
Tinners, hand roofing.....	3	24.00	Do.
Tinners, No. 100.....	2	16.00	Do.
Aprons, blacksmiths.....	6	9.00	Do.
Do.....	600	900.00	Various camps.
Arbors, milling.....	1	2.50	Dix.
Arresters, lightning.....	10	5.00	Meade.
Do.....	3,000	1,500.00	Various camps.
Asbestos, sheet packing.....pounds..	2,500	1,000.00	Do.
Augers, $\frac{1}{4}$ to $1\frac{1}{4}$ inch.....	10	20.00	Fort Riley.
Automobile tools and equipment.....sets..	100	50,000.00	Various camps.
Awls, scratch.....	15	3.75	Camp Sherman.
Do.....	1,000	250.00	Various camps.
Axes:			
Hand.....	12	12.00	Fort McIntosh.
Do.....	3	3.00	Fort Thomas.
Bench.....	8	8.00	Do.
Hand.....	1,000	1,000.00	Various camps.
Babbitt.....pounds..	50	20.00	Fort Wayne.
Do.....do....	50	20.00	Fort Rosecrans.
Do.....do....	300	120.00	Fort Crook
Do.....do....	5,000	2,000.00	Various camps.
Balances, torsion cream test.....	2	20.00	Sherman.
Balance:			
10-inch circular dial spring.....	1	10.00	Devens.
20-inch circular dial spring.....	1	15.00	Do.
Ballopticon.....	1	75.00	Grant.
Do.....	50	3,750.00	Various camp.
Bars:			
Burning.....pounds..	25	10.00	Devens.
Pinch.....	4	8.00	Fort Jay.
Do.....	2	4.00	Fort McIntosh.
Do.....	2	4.00	Fort Riley.
Do.....	200	400.00	Various camps.
Base:			
For liberty lathe.....	1	300.00	Camp H. J. Jones.
Snap switch.....	12	6.00	Devens.
Batteries:			
Willard (type S. J. R. 26).....	1	38.00	Riley.
Flashlight.....	12	3.00	Rodman.
Sectionalized.....	1	38.00	Lewis.
Do.....	50	1,900.00	Various camps.
3-cell, flashlight.....	100	25.00	Meade.
Edison type.....	19	475.00	Fort Slocum.
Battery jars, Willard.....	575	1,150.00	Fort Jay.

Army vocational training equipment requested which can not be supplied from surplus to date, Jan. 15, 1921—Continued.

Article.	Amount.	Cost.	Camp.
Blue:			
Aniline.....tubes..	\$10	\$2.50	Fort Slocum.
Do.....do.....	200	50.00	Various camps.
Belt:			
Dressing.....pounds..	2	.80	Fort Ruger.
Do.....do.....	200	800.00	Various camps.
Belting.....feet..	2,000	3,000.00	Do.
Belt lacing.....feet..	100	2.00	Fort Ruger.
Do.....do.....	20,000	400.00	Various camps.
Bells:			
Door, electric.....	10	7.50	Meade.
Do.....	6	4.50	Fort Thomas.
Do.....	1,000	750.00	Various camps.
Benches, work:			
With vises.....	20	400.00	Fort Riley.
Automobile.....	10	200.00	Do.
Do.....	2,000	30,000.00	Various camps.
Bits, auger, miscellaneous sizes.....	250	250.00	Fort Jay.
Do.....	75	75.00	Fort Thomas.
Bits, drill, twist.....sets..	2	20.00	Fort Slocum.
Bits, miscellaneous.....	20,000	10,000.00	Various camps.
Blades, hack saw, 10-inch.....	48	4.00	Fort Seward.
Blades, hack saw.....dozen..	2	2.00	Fort McIntosh.
Do.....do.....	4	4.00	El Paso.
Do.....do.....	4	4.00	Fort Slocum.
Do.....do.....	72	72.00	Fort Rosecrans.
Do.....do.....	480	480.00	Various camps.
Block, tin.....pounds..	500	100.00	Grant.
Blue print frames and equipment.....	200	8,000.00	Various camps.
Boards, drafting.....	100	300.00	Hawaiian Department.
Do.....	500	1,500.00	Various camps.
Bolts, miscellaneous sizes.....	500	10.00	Sherman.
Do.....	500	10.00	Fort Ruger.
Do.....	500	10.00	Vancouver Barracks.
Do.....	5,000	50.00	Various camps.
Boxes, miter, steel.....	12	120.00	Meade.
Do.....	2	20.00	Sherman.
Do.....	100	1,000.00	Various camps.
Braces, carpenters'.....	12	24.00	Hawaiian Department.
Do.....	1	2.00	Fort McIntosh.
Do.....	8	16.00	Fort Thomas.
Do.....	500	1,000.00	Various camps.
Brads, wire, miscellaneous sizes.....pounds..	25	1.50	Fort Riley.
Do.....do.....	30	1.80	Fort Seward.
Do.....do.....	10,000	600.00	Various camps.
Brake lining.....feet..	150	112.50	Fort Washington.
Brass, sheet.....square feet..	15	4.50	Fort Thomas.
Bridges, wheatstone.....	2	250.00	Meade.
Do.....	1	125.00	Devens.
Bronze bearing metal.....pounds..	100	40.00	Fort Rosecrans.
Do.....do.....	2,000	800.00	Various camps.
Brushes, wire.....	18	9.00	Fort McIntosh.
Do.....	1,000	500.00	Various camps.
Buckets, galvanized (fire).....	10	5.00	Fort Washington.
Do.....	10,000	5,000.00	Various camps.
Bulbs, electric.....dozen..	8	8.00	Fort Slocum.
Bushings, conduit.....	250	25.00	Sherman.
Do.....	10,000	1,000.00	Various camps.
Buttons, push, Navy type.....	20	5.00	Meade.
Do.....	6	1.50	Fort Thomas.
Do.....	2,000	500.00	Various camps.
Buzzers, electric.....	6	4.50	Fort Thomas.
Do.....	1	.75	Fort Jay.
Do.....	2,000	1,500.00	Various camps.
Calcium, carbide.....pounds..	5	.50	Lewis.
Do.....do.....	10,000	1,000.00	Various camps.
Calipers, micrometer.....	6	24.00	Fort Washington.
Do.....	5	20.00	Camp Lewis.
Do.....	1,000	5,000.00	Various camps.
Camera, Graflex.....	1	150.00	Columbus Barracks.
Carburetors, miscellaneous makes.....	12	300.00	Fort Slocum.
Do.....	2	30.00	Fort Snelling.
Do.....	12	240.00	El Paso.
Do.....	7	105.00	Fort Crook.
Do.....	10	150.00	Dix.
Do.....	3	45.00	Army and Navy Hospital.
Do.....	12	180.00	Hot Springs.
Do.....	12	180.00	Fort Riley.
Do.....	12	180.00	Fort Thomas.

Army vocational training equipment requested which can not be supplied from surplus to date, Jan. 15, 1921—Continued.

Article.	Amount.	Cost.	Camp.
Cells:			
Dry, No. 6, Columbia.....	24	\$8.20	Fort Rodman.
Experimental.....	6	9.00	Meade.
Dry, No. 6, Columbia.....	2, 400	820.00	Various Camps.
Cement:			
Rubber, patching.....	2	3.00	Fort Washington.
Do.....	100	150.00	Various Camps.
Portland.....sacks..	10, 000	10, 000.00	Dix.
Do.....do.....	100, 000	100, 000.00	Various Camps.
Chains:			
Measuring.....	2	20.00	Meade.
Measuring (surveyors').....	50	500.00	Various Camps.
Chalk, carpenters.....gross..	1	1.50	Fort Riley.
Do.....do.....	50	75.00	Various Camps.
Chalk line.....feet.....	200	.50	Fort Riley.
Do.....do.....	20, 000	50.00	Various Camps.
Charcoal.....pounds.....	2, 500	50.00	Grant.
Charger, storage battery.....	1	150.00	Fort Worden.
Do.....	1	150.00	Meade.
Checks, brass tool room.....	500	5.00	Fort Slocum.
Chests, carpenter.....	2	50.00	Fort Washington.
Chests, carpenter and wheelwright.....	6	150.00	Fort Riley.
Chests, tinner's tools.....	12	300.00	Fort Sam Houston.
Do.....	25	625.00	Meade.
hests, tinner's, carpenters, etc.....	25	625.00	Fort Jay.
Do.....	50	1, 250.00	Various Camps.
Chisels, miscellaneous.....	100	75.00	Fort Snelling.
Do.....	48	36.00	Fort McIntosh.
Do.....	60	45.00	Sherman.
Do.....	10, 000	7, 500.00	Various Camps.
Chucks, lathe.....	2	48.00	Fort Washington.
Do.....	200	4, 000.00	Various Camps.
Clamps, bench.....	12	6.00	Fort Sam Houston.
Do.....	1, 000	500.00	Various Camps.
Clay, fire.....pounds.....	50	5.00	Grant.
Do.....do.....	1, 000	100.00	Various Camps.
Cleaners:			
File.....	2	.50	Fort Riley.
Do.....	1, 000	250.00	Various camps.
Cleats:			
Porcelain.....	3, 000	150.00	Hawaiian Department.
Do.....	10, 000	500.00	Various camps.
Climbers, lineman.....	3	6.00	Fort Thomas.
Clipper, bolt.....	2	16.00	Sherman.
Do.....	200	1, 600.00	Various camps.
Clocks, office.....	3	30.00	Presidio of San Francisco.
Do.....	3	30.00	Fort Riley.
Coal, blacksmith.....pounds.....	2, 000	20.00	Sherman.
Do.....do.....	200, 000	2, 000.00	Various camps.
Coils:			
Transformer.....	5	100.00	Sherman.
Induction.....	12	60.00	Fort Slocum.
Do.....	2	10.00	Army and Navy Hospital, Hot Spring.
Coke, foundry.....carload.....	1	800.00	Grant.
Do.....do.....	10	8, 000.00	Various camps.
Combination, machinists.....sets.....	20	160.00	Fort Andrews.
Do.....do.....	200	1, 600.00	Various camps.
Comptometers.....	5	1, 500.00	Grant.
Do.....	4	1, 200.00	Fort Douglas.
Do.....	100	25, 000.00	Various camps.
Compensators, starting, 3-phase.....	2	400.00	Devens.
Compound, valve grinding.....cans.....	25	6.25	Fort Slocum.
Do.....do.....	600	150.00	Various camps.
Conduit.....feet.....	700	70.00	Devens.
Do.....do.....	2, 000	200.00	Hawaiian Department.
Do.....do.....	1, 000	100.00	Sherman.
Do.....do.....	100, 000	1, 000.00	Various camps.
Condulets.....	1, 500	225.00	Meade.
Do.....	50, 000	7, 500.00	Various camps.
Cord:			
Reinforced, No. 18.....feet.....	2, 000	80.00	Sherman.
Do.....do.....	200, 000	8, 000.00	Various camps.
Coppers, soldering, 4-pound.....	3	1.20	Meade.
Do.....	300	120.00	Various camps.
Cotton, waste.....pounds.....	50	7.50	Fort Thomas.
Do.....do.....	10, 000	750.00	Various camps.
Countersinks.....	100	10.00	Sherman.
Do.....	1, 000	100.00	Various camps.

Army vocational training equipment requested which can not be supplied from surplus to date, Jan. 15, 1921—Continued.

Article.	Amount.	Cost.	Camp.
Cranes:			
Floor.....	4	\$400.00	Dix.
Portable.....	1	150.00	Fort Snelling.
Do.....	100	10,000.00	Various camps.
Crayon, school.....boxes..	300	300.00	Grant.
Do.....do.....	2,000	2,000.00	Various camps.
Cultivators, farm.....	4	400.00	Fort Snelling.
Cut-out boxes, electric wiring.....	1,000	400.00	Meade.
Do.....	100,000	4,000.00	Various camps.
Cutters, milling.....	1,000	2,000.00	Do.
Dies and taps (screw plates, complete)....sets..	200	4,000.00	Do.
Dividing heads (milling machines).....	100	10,000.00	Do.
Dividers, machinists'.....	1,000	750.00	Do.
Drafting instruments.....sets..	200	4,000.00	Do.
Drills, twist, machinists'.....	10,000	5,000.00	Do.
Extinguishers, fire.....	2,500	25,000.00	Do.
Electric fans.....	8	240.00	Grant.
Do.....	200	6,000.00	Various camps.
Fixtures, electric.....	10,000	10,000.00	Do.
Flasks, snap.....	20	80.00	Grant.
Do.....	100	400.00	Various camps.
Forges, portable blacksmith.....	200	6,000.00	Do.
Frames:			
Hack saw.....	12	12.00	Washington.
Do.....	12	12.00	Andrews.
Do.....	12	12.00	McIntosh.
Blue print.....	6	60.00	Meade.
Printing.....	6	60.00	Dix.
Funnels:			
Glass.....	10	7.50	Sherman.
Cox.....	6	4.50	Dix.
Furnace:			
Gasoline.....	1	15.00	Sherman.
Plumbing.....	4	28.00	Thomas.
Tinner's.....	3	21.00	Do.
Oil bath.....	1	200.00	Grant.
Electric.....	3	3,000.00	Do.
Gas, muffle.....	1	100.00	McIntosh.
Furniture, wicker.....pieces..	36	270.00	Dix.
Fuses.....	130	13.00	Sherman.
Do.....	28	56.00	Do.
Do.....	28	56.00	Do.
Do.....	130	13.00	Do.
Do.....	35	70.00	Jav.
Do.....	1,300	130.00	Meade.
Do.....	850	850.00	Do.
Do.....	100	200.00	Do.
Do.....	75	37.50	Deven.
Glasses, reading.....	12	12.00	Dix.
Galvanometers, thermo.....	4	160.00	Meade.
Gaskets.....	50	25.00	Lewis.
Gasoline system, vacuum, Stewart.....	2	40.00	Bliss.
Gear controllers.....	1	15.00	Riley.
Gauges.....	6	4.50	Wav.
Tire.....	6	6.00	Storum.
Pitch thread.....	6	9.00	Bliss.
Wire.....	16	24.00	Sherman.
Screw.....	12	18.00	Do.
Tire.....	3	3.00	Do.
Universal surface.....	6	12.00	Do.
Center.....	15	11.25	Do.
Marking.....	16	24.00	Thomas.
Surface.....	6	12.00	Rosecrans.
Do.....	6	12.00	Worden.
Thread.....sets..	6	12.00	Ontario.
Stanley.....	6	7.50	Riley.
Thumb mortise.....	6	4.50	Do.
Butts.....sets..	2	2.50	Seward.
Wire.....	2	2.00	Rodman.
Screw pitch.....	11	16.50	Meade.
Micrometer.....	1	8.00	Do.
Gauges.....	10	7.50	Snelling.
Marking.....	20	12.00	Do.
Try-square.....	20	15.00	Do.
Gauges.....	400	600.00	Various camps.
Generator, motor.....	1	275.00	Meade.
Do.....	7	2,450.00	Do.
Do.....	6	540.00	Riley.
Generator and starter.....	7	1,225.00	Storum.

Army vocational training equipment requested which can not be supplied from surplus to date, Jan. 15, 1921—Continued.

Article.	Amount.	Cost.	Camp.
Generator:			
Motor.....	1	\$2,500.00	Jay.
Gas.....	1	450.00	Stevens.
Do.....	1	450.00	Rosecrans.
Motor.....	1	2,500.00	Wayne.
Do.....	1	3,500.00	Stanley.
Do.....	5	875.00	Bliss.
Do.....	100	20,000.00	Various camps.
Globes:			
Electric light.....	60	90.00	Devens.
Do.....	12	6.00	Riley.
Do.....	500	250.00	Liscum.
Do.....	50	25.00	Dix.
Do.....	5,000	2,500.00	Various camps.
Gloves.....pairs.....	300	450.00	Devens.
Do.....do.....	50	75.00	Washington.
Do.....do.....	5,000	7,500.00	Various camps.
Glue.....pounds.....	25	5.00	Riley.
Do.....do.....	25	5.00	Funston.
Do.....do.....	2,500	500.00	Various camps.
Glycerine.....quarts.....	1	2.00	McIntosh.
Goggles.....pairs.....	10	10.00	Grant.
Do.....do.....	10	10.00	Washington.
Do.....do.....	1,000	1,000.00	Various camps.
Gauges.....	8	6.00	Fort Thomas.
Do.....	600	450.00	Various camps.
Graduates.....	10	10.00	Sherman.
Do.....	10	10.00	Dix.
Do.....	1,000	1,000.00	Various camps.
Grease.....barrel.....	1	40.00	Riley.
Do.....pounds.....	15	3.00	McIntosh.
Do.....do.....	25	5.00	Washington.
Do.....do.....	2,500	500.00	Various camps.
Grinder:			
Bench.....	1	50.00	Washington.
Valve.....	16	24.00	Do.
Grinder.....	1	75.00	Snelling.
Do.....	10	750.00	Jay.
Do.....	2	150.00	Thomas.
Do.....	1	75.00	McIntosh.
Do.....	1	50.00	Snelling.
Do.....	80	6,000.00	Various camps.
Grinder:			
Automatic.....	1	150.00	Grant.
Portable, with motor.....	2	250.00	Do.
Grips:			
Buffalo.....sets.....	3	12.00	Thomas.
Do.....do.....	100	400.00	Various camps.
Guards, lamp.....	75	18.75	Sherman.
Do.....	10	2.50	Slocum.
Do.....	1,000	250.00	Various camps.
Hammers.....	20	20.00	Devens.
Do.....	60	60.00	Jay.
Do.....	12	12.00	Meade.
Do.....	36	36.00	Slocum.
Do.....	78	78.00	Washington.
Do.....	50	50.00	Columbus Barracks.
Do.....	24	24.00	Snelling.
Do.....	15	15.00	Bliss.
Do.....	39	39.00	McIntosh.
Do.....	60	60.00	Stevens.
Do.....	54	54.00	Rosecrans.
Do.....	20	20.00	Thomas.
Do.....	2,200	2,200.00	Various camps.
Handles, tool.....	100	25.00	Riley.
Do.....	24	6.00	Thomas.
Do.....	2,400	600.00	Various camps.
Hangers.....	14	140.00	Devens.
Do.....	10	100.00	Ruger.
Do.....	10	100.00	Bliss.
Do.....	500	5,000.00	Various camps.
Hardies.....	20	10.00	Thomas.
Do.....	2,000	1,000.00	Various camps.
Harrows.....	9	225.00	Meade.
Do.....	4	100.00	Snelling.
Do.....	1	25.00	McIntosh.
Do.....	50	1,250.00	Various camps.
Head, dado expansive.....	20	200.00	Do.
Heating plant, automotive.....	1	2,000.00	Dix.
Heater, electric.....	1	20.00	Liscum.
Do.....	5	100.00	Slocum.
Do.....	100	2,000.00	Various camps.

Army vocational training equipment requested which can not be supplied from surplus to date, Jan. 15, 1921—Continued.

Article.	Amount.	Cost.	Camp.
Hose.....	8	\$4.00	McIntosh.
Do.....	800	400.00	Various camps.
Hoist.....	1	40.00	Rodman.
Hoist, chain.....	1	40.00	Wayne.
Do.....	4	160.00	Washington.
Do.....	50	2,000.00	Various camps.
Hooks, various kinds.....	5,000	50.00	Do.
Holders, various kinds.....	600	450.00	Do.
Horses.....	12	30.00	Ethan Allen.
Do.....	500	1,250.00	Various camps.
Hose.....feet.....	100	20.00	McIntosh.
Do.....do.....	10,000	2,000.00	Various camps.
Hydrometers.....	6	7.50	Slocum.
Do.....	3	3.75	Sherman.
Do.....	1	1.25	Ethan Allen.
Do.....	9	11.25	Riley.
Do.....	3	3.75	Washington.
Do.....	200	250.00	Various camps.
Ignition system, Delco.....	1	40.00	Snelling.
Ignition system.....	1	40.00	Army and Navy General Hospital.
Ignition unit.....	1	40.00	Bliss.
Ignition distributor, Connecticut.....	2	80.00	Do.
Ignition units.....	5	200.00	Do.
Ignition systems.....	6	240.00	Slocum.
Do.....	100	4,000.00	Various camps.
Indicator.....	1	4.00	Army and Navy General Hospital.
Do.....	4	16.00	Sherman.
Do.....	200	800.00	Various camps.
Ingots, copper.....tons.....	3	1,200.00	Grant.
Do.....do.....	60	24,000.00	Various camps.
Bottles ink, drawing.....dozen.....	36	108.00	Grant.
Do.....do.....	3	9.00	Riley.
Do.....do.....	43	129.00	Abraham Eustis.
Do.....each.....	10	3.00	Meade.
Do.....dozen.....	250	750.00	Various camps.
Instruments:			
Drafting.....sets.....	100	1,000.00	Honolulu, Hawaii.
Drawing.....do.....	4	40.00	Schofield Barracks, Hawaii.
Do.....do.....	100	1,000.00	Grant.
Drafting.....do.....	100	1,000.00	Honolulu, Hawaii.
Do.....do.....	1,000	10,000.00	Various camps.
Insulators:			
Porcelain.....	100	2.00	Sherman.
Do.....	5,000	100.00	Honolulu, Hawaii.
Glass.....	100	2.00	Grant.
Insulators.....	10,000	200.00	Various camps.
Irons, electric.....	20	100.00	Honolulu, Hawaii.
Do.....	2	10.00	Jay.
Do.....	6	30.00	Honolulu, Hawaii.
Do.....	100	500.00	Various camps.
Jacks.....	10	200.00	Washington.
Do.....	4	80.00	McIntosh.
Do.....	18	360.00	Jay.
Do.....	4	80.00	Bliss.
Do.....	5	100.00	Slocum.
Do.....	20	400.00	Thomas.
Do.....	200	4,000.00	Various camps.
Jig, doweling.....	1	3.00	Riley.
Do.....	2	6.00	Snelling.
Do.....	200	600.00	Various camps.
Joiners.....	6	6.00	Devens.
Jointers.....	3	3.00	Sherman.
Do.....	1	1.00	Snelling.
Do.....	200	200.00	Various camps.
Keys.....box.....	1	2.50	Wadsworth.
Do.....do.....	1	2.50	Ontario.
Do.....do.....	1	2.50	Do.
Do.....do.....	100	250.00	Various camps.
Kit:			
Electrician's set.....	1	12.00	Dix.
Steel tape.....	2	10.00	Meade.
Knives.....	70	35.00	Devens.
Do.....	47	23.50	Snelling.
Do.....	21	10.50	Thomas.
Do.....	79	39.50	Sherman.
Do.....	2	1.00	Ethan Allen.
Do.....	12	6.00	McIntosh.
Do.....	1,200	600.00	Various camps.

Army vocational training equipment requested which can not be supplied from surplus to date, Jan. 15, 1921—Continued.

Article.	Amount.	Cost.	Camp.
Ladles.....	2	\$1.00	Thomas.
Do.....	1	.50	McIntosh.
Do.....	200	100.00	Various camps.
Do.....	22	132.00	Snelling.
Do.....	200	600.00	Various camps.
Lactometers.....	6	12.00	Sherman.
Lamps, electric.....	75	56.25	Devens.
Do.....	5	3.75	Sherman.
Do.....	12	9.00	Riley.
Do.....	600	450.00	Sherman.
Do.....	10,000	7,500.00	Various camps.
Do.....	25	18.75	Slocum.
Lathes.....	2	1,600.00	Ethan Allen.
Do.....	2	800.00	Grant.
Do.....	1	800.00	Wilbur Wright Field.
Electric tool post grinder lathes.....	2	1,600.00	Sherman.
Lathes.....	2	1,600.00	Snelling.
Do.....	20	16,000.00	Plattsburg.
Do.....	11	800.00	Washington.
Do.....	5	4,000.00	Snelling.
Do.....	200	160,000.00	Various camps.
Do.....	1	800.00	Thomas.
Lockers.....	10,000	75,000.00	Various camps.
Machines, woodworking.....	500	250,000.00	Do.
Ammeters.....	400	20,000.00	Do.
Motion-picture equipment.....	100	35,000.00	Do.
Paint.....barrels.....	100	10,000.00	Do.
Racks, amber plate burning.....	2	10.00	Devens.
Rack, plate burning.....	1	5.00	Sherman.
Racks, for test bottles.....	3	6.00	Do.
Radio, set complete.....	1	3,500.00	Worden.
Do.....	1	3,500.00	McDowell.
Do.....	1	3,500.00	Missoula.
Do.....	2	7,000.00	Presidio of San Francisco.
Do.....	1	3,500.00	Rosecrans.
Do.....	2	7,000.00	Coast defenses of San Francisco.
Do.....	1	3,500.00	Douglas.
Do.....	1	3,500.00	Vancouver Barracks.
Rakes, fire.....	4	10.00	Thomas.
Radiator, Ford.....	2	75.00	Riley.
Rammers, pneumatic.....	5	250.00	Grant.
Rasp, rotary, for buffing stand and grinder.....	1	5.00	Devens.
Rasps:			
Shoeing, 16-inch.....	50	25.00	Thomas.
Rotary.....	2	15.00	Sherman.
Shoeing, 16-inch.....	50	25.00	Thomas.
Lead.....	50	25.00	Sherman.
Wood, 12-inch.....	100	30.00	Riley.
Reamers:			
Taper.....	3	5.00	Washington.
Expansion, $\frac{1}{8}$ inch to 2 inches.....set.....	1	25.00	Rosecrans.
Expansion, $\frac{1}{8}$ inch to 1 inch.....do.....	1	25.00	Douglas.
Conduit burring, $\frac{1}{8}$ to 1 inch.....	6	3.00	Devens.
Expansion, $\frac{1}{8}$ inch to 1 $\frac{1}{2}$ inches.....set.....	1	20.00	Wayne.
Reamers.....sets.....	8	200.00	Sherman.
Reamers, hand, $\frac{1}{8}$ inch to 1 inch by $\frac{1}{16}$ steps.....do.....	1	20.00	Dix.
Reamers.....set.....	3	60.00	Slocum.
Reamers:			
$\frac{1}{8}$ inch to $\frac{1}{4}$ inch.....do.....	2	2.00	Liscum.
Steel.....	8	10.00	Thomas.
$\frac{1}{8}$ round for wood or soft metal.....	8	10.00	Do.
Receptacles.....	24	10.00	Devens.
Receptacles, keyless, molding No. 399 B.....	6	4.00	Do.
Receptacles.....	600	300.00	Meade.
Receivers, telephone, Westinghouse Electric, No. 144-A without cords.....	5	10.00	Do.
Rectifier:			
Complete.....	1	25.00	Slocum.
Tungar 30-cell type.....	1	40.00	Sherman.
General Electric Tungar 9-cell cap.....	1	25.00	El Paso.
Tungar.....	1	25.00	Riley.
Relays.....	15	300.00	Sherman.
Do.....	15	300.00	Do.
Reliners.....	185	500.00	Devens.
Removers, bushing.....sets.....	2	10.00	Slocum.
Do.....	1	5.00	Ontario.
Resistance, discharge.....	1	20.00	Sherman.
Rheostats, field.....	5	100.00	Meade.
Ribbons, typewriter, Underwood.....	72	72.00	Devens.
Ribbons, typewriter.....	300	300.00	Grant.

Army vocational training equipment requested which can not be supplied from surplus to date, Jan. 15, 1921—Continued.

Article.	Amount.	Cost.	Camp.
Rings.....	200	\$25.00	Oglethorpe.
Do.....	20	2.00	Lewis.
Rivets:			
Copper.....pounds..	3	75.00	Washington.
Copper, with burrs.....do..	2	.50	McIntosh.
Rivet, set, for copper rivets.....	1	.50	Do.
Rivet sets.....	3	1.50	Thomas.
Rivets and burrs, copper.....pounds..	3	.75	Ruger.
Do.....do..	25	6.25	Do.
Rivets, 5 sizes.....do..	10	2.50	Thomas.
Rod, $\frac{1}{2}$ by 1 inch, brass.....feet..	5	3.00	Devens.
Rod, cold rolled.....do..	600	120.00	Crook.
Rod, brass.....do..	120	50.00	Do.
Rod, connecting, aligner.....	1	3.00	Snelling.
Rope:			
Manila, $\frac{1}{2}$ to $\frac{3}{4}$ inch.....feet..	3,000	750.00	Washington.
Manila, $\frac{3}{4}$ -inch.....do..	100	25.00	Hot Springs.
Manila.....pounds..	100	25.00	Riley.
Rollers, seam, 1-inch.....	2	10.00	Snelling.
Rollers.....	40	50.00	Devens.
Rollers, $\frac{1}{2}$ pound.....	12	15.00	Sherman.
Roller, steam, small.....	1	2,000.00	Dix.
Rosettes:			
Arrow, clear, No. 297.....	12	6.00	Devens.
Ceiling, cleat.....	400	200.00	Meade.
Rosettes.....	50	25.00	Sherman.
Rosettes:			
Concealed, cord.....	25	12.50	Do.
Cleat.....	25	12.50	Do.
Porcelain cleats.....	200	100.00	Slocum.
Rubbers, sponge, $1\frac{1}{2}$ by 2 by 4 inches.....	100	50.00	Meade.
Rugs.....	10	900.00	Dix.
Rulers, office, 12-inch.....	24	10.00	Riley.
Rules.....	10	20.00	Washington.
Rules, 3 feet 3-fold Stanley, No. 664.....	20	10.00	Snelling.
Rules.....	62	32.00	Lewis.
Rules:			
6-inch tempered steel.....	20	25.00	Dix.
Flexible, jointed, 6-foot.....	50	50.00	Meade.
Caliper, 12-inch.....	8	15.00	Slocum.
Folding.....	24	24.00	Riley.
Boxwood, 2-foot, 4-fold.....	2	1.00	Thomas.
Do.....	18	9.00	Do.
Carpenter.....	100	50.00	Riley.
2-foot.....	24	12.00	McIntosh.
Rules.....	160	83.00	Grant.
Sal ammoniac.....pounds..	100	10.00	Andrews.
Safes:			
Office, cabinet.....	5	500.00	Jay.
Steel, combination.....	2	200.00	Riley.
Field.....	10	500.00	Grant.
Sampler and divider, new grain, No. 34.....	1	35.00	Dix.
Sanders.....	2	700.00	Grant.
Sanders, various types.....	12	8,400.00	Various camps.
Sander, belt with motor, American, No. 8.....	1	800.00	Snelling.
Sandpaper.....bundles..	3	75.00	Do.
Saw, cut-off (with motor).....	1	300.00	Do.
Saw sets.....	6	8.00	Do.
Saws:			
Band.....	3	12.00	Devens.
Hack, assorted.....dozen..	30	90.00	Snelling.
Saws.....	60	120.00	Do.
Saws, keyhole, 18-inch, Disston.....	20	20.00	Do.
Saw, band, with motor.....	1	600.00	Do.
Saws:			
Coping, Disston, No. 10.....	10	10.00	Do.
Hack, frames.....	25	25.00	Riley.
Hack.....	25	25.00	Columbus Barracks.
Cross-cut, 11 point, 24-inch, Disston, No. 112.....	10	20.00	Riley.
Hand.....	20	40.00	Do.
Saws.....	50	100.00	McIntosh.
Saws:			
Compass, 3 blades.....sets..	3	6.00	Thomas.
Hand, 9 points.....	3	6.00	Do.
Compass.....sets..	4	8.00	Do.
Saws.....	6	12.00	Do.
Saw.....sets..	8	8.00	Do.
Saws:			
Rip, 24-inch.....	8	16.00	Do.
Coping.....	25	25.00	Sherman.
Saw, band, with motor, 14-inch.....	1	600.00	Do.

Army vocational training equipment requested which can not be supplied from surplus to date, Jan. 15, 1921—Continued.

Article.	Amount.	Cost.	Camp.
Saws, dovetail, Disston, No. 70.....	2	\$4.00	Riley.
Saw sets, with revolving anvil.....	2	2.00	Do.
Saws, back, 13-point, 14-inch, Disston, No. 14..	2	4.00	Do.
Saws.....	3	12.00	Russell.
Scales, triangular boxwood, 12-inch.....	100	150.00	Hawaiian Department.
Do.....	100	150.00	Do.
Scales:			
Platform, 50-inch.....	2	50.00	Jay.
Engineers.....	50	75.00	Meade.
Boxwood, triangular.....	25	35.00	Honolulu.
Steel.....	12	24.00	Hot Springs.
Sclerescopce, shore.....	2	200.00	Grant.
Scoops, coal and grain.....	23	65.00	Riley.
Scrapers:			
Cabinet, Stanley, No. 20.....	20	10.00	Snelling.
Bearing.....sets.....	2	6.00	McIntosh.
Do.....do.....	6	18.00	Wayne.
Bearing, 3½-inch blade.....do.....	6	18.00	Monroe.
Bearing.....do.....	10	30.00	Slocum.
Scrapers.....do.....	5	15.00	El Paso.
Scrapers:			
Hollow bearer.....set.....	1	3.00	Ontario.
Cabinet.....	32	16.00	Russell.
Screens:			
Various sizes.....	8	30.00	Snelling.
Victor White on spring rollers (Nanova)....	2	15.00	Grant.
Screws:			
Jack.....	6	120.00	Fort Washington.
Hexagonal head.....gross.....	9	13.50	Do.
Do.....do.....	8	10.00	Do.
Do.....do.....	7	9.50	Do.
Wood, flatiron head.....do.....	16	18.00	Do.
Wood, round head.....do.....	5	2.75	Do.
Wood, ground head, brass.....do.....	5	3.00	Do.
Machine, flathead, iron.....do.....	15	18.00	Do.
Machine, roundhead, iron.....do.....	15	18.00	Do.
Machine, flathead, brass.....do.....	15	18.00	Do.
Machine, roundhead, brass.....do.....	5	6.25	Do.
Do.....do.....	11	14.00	Do.
Lag, iron, galvanized, ½ by 5 inch.....	75	5.00	Sherman.
Wood.....gross.....	3	1.50	Devens.
Screws:			
Machine, R. H., with nuts.....boxes.....	5	6.25	McIntosh.
Iron, machine.....gross.....	130	165.00	Jay.
Do.....do.....	130	165.00	Do.
Lag.....	90	5.00	Ruger.
Screws and nuts, machine.....gross.....	4	5.00	Dix.
Screws, cap.....do.....	50	63.00	Do.
Screws.....do.....	150	187.50	Do.
Screws, iron, machine.....do.....	180	227.50	Jay.
Screws.....	120	2.40	Ruger.
Screws:			
Bench, iron.....	10	40.00	Riley.
Cap.....dozen.....	12	1.25	Sherman.
1-inch, No. 8.....gross.....	2	2.50	Do.
1½ by 8 inches, R. H. B.....do.....	1	1.25	Do.
Hand.....	25	100.00	Do.
Various sizes.....gross.....	24	30.00	Sam Houston.
Bench.....	50	150.00	Sherman.
Pitch, 24 pitches.....	2	6.00	Meade.
Hand.....	50	100.00	Do.
Wood, bright, flat head.....gross.....	10	12.00	Lewis.
Screw drivers.....	12	12.00	Washington.
Do.....	22	22.00	Snelling.
Screw drivers, 6-inch.....	20	20.00	Devens.
Do.....	72	60.00	Lewis.
Screw drivers:			
Various sizes.....	12	12.00	Dix.
Ratchet.....	62	75.00	Grant.
Screw drivers.....	36	35.00	Riley.
Screw drivers:			
Assorted.....	100	100.00	Sherman.
Various sizes.....	108	54.00	Thomas.
Assorted.....	100	75.00	Slocum.
3-inch, Champion, regular.....	60	30.00	Bliss.
Sealing wax.....pounds.....	5,000	1,000.00	Various camps.
Seamer, tinnerns', 2-foot.....	1	15.00	Lewis.
Sealing wax, battery.....pounds.....	50	10.00	Rosecrans.

Army vocational training equipment requested which can not be supplied from surplus to date, Jan. 15, 1921—Continued.

Article.	Amount.	Cost.	Camp.
Sectionalized transmission.....	1	\$180.00	Thomas.
Sectionalized rear axle, with differential.....	1	100.00	Do.
Sectionalized motor.....	1	175.00	Do.
Seeder, Planet, jr., No. 4 or 6.....	1	100.00	McIntosh.
Seeder, hill and drill combined.....	1	100.00	Meade.
Separators, wood.....	1,000	10.00	Lewis.
Settees and lounges.....	4	160.00	Grant.
Sewing machines, Singer.....	25	1,500.00	Honolulu.
Sewing machines.....	200	12,000.00	Various camps.
Shafting hangers and couplings.....feet.....	150	300.00	Riley.
Shafting and hangers.....		20,000.00	Various camps.
Shafting, steel, 1½ inches.....feet.....	24	100.00	El Paso
Shaft, 2-foot line.....	50	150.00	Crook.
Shafting line with boxes, 1½-inch.....feet.....	20	60.00	Rosecrans.
Shafting, steel.....do.....	64	192.00	Ruger.
Shafting, various sizes.....lengths.....	21	500.00	Sam Houston.
Shaper, small.....	1	750.00	Snelling.
Shaper, with motor, American No. 1.....	1	1,000.00	Do.
Shapers, Gould & Eberhardt.....	6	6,000.00	Grant.
Shaper, 18-inch, complete with countershaft and equipment.....	1	850.00	Crook.
Sharpeners, pencil.....	24	24.00	Lewis.
Do.....	50	50.00	Grant.
Shaving machine for dictaphone.....	1	35.00	Do.
Shears, 8-inch.....	12	15.00	Snelling.
Shears, 6-inch or large, for school of tailoring, pairs.....	100	100.00	Honolulu.
Shears.....pairs.....	18	27.00	Devens.
Do.....do.....	2,000	2,225.00	Various camps.
Shears, tinnern's.....do.....	300	600.00	Do.
Sheet, packing ½, head and oil resisting, pounds.....	25	3.75	McIntosh.
Sheet, packing.....do.....	2,000	300.00	Various camps.
Sheets, iron, galvanized.....	500	350.00	Meade.
Sheets, galvanized, corrugated iron.....	2,000	1,440.00	Dix.
Shellac.....gallons.....	500	1,500.00	Various camps
Shovels, fire.....	200	250.00	Do.
Sickles, hand.....	100	200.00	Do.
Sieves.....sets.....	2	20.00	Dix.
Sleeves, copper.....	980	245.00	Slocum.
Sledges.....	200	500.00	Various camps
Slide rules.....sets.....	25	200.00	Grant.
Do.....do.....	150	1,200.00	Various camps.
Soap, automobile.....pounds.....	300	30.00	Do.
Soap, scouring.....cakes.....	360	18.00	Do.
Sockets, weatherproof.....	50	37.50	Honolulu.
Sockets, Mossberg sets.....	10	20.00	McIntosh.
Sockets, key.....	2,000	1,000.00	Various camps.
Sockets, Weber, key ½-inch.....	200	100.00	Slocum.
Sockets, weatherproof, keyless.....	94	50.00	Do.
Sockets, auto lamp.....	24	25.00	Do.
Sockets, key.....	200	100.00	Sherman.
Sockets, key, porcelain, pendant.....	75	37.50	Do.
Sockets, key, brass.....	100	50.00	Do.
Sockets, Webber, keyless.....	300	150.00	Slocum.
Sockets, weatherproof, keyless.....	200	100.00	Do.
Sal soda.....pounds.....	500	25.00	Various camps
Soldering coppers.....do.....	15	15.00	Washington.
Soldering paste, 2-ounce cans.....do.....	5	6.00	Do.
Solder.....do.....	2,000	400.00	Various camps
Soldering irons, electric.....	200	2,000.00	Do.
Spark plugs.....	1,000	750.00	Do.
Spoke shaves, adjustable.....	18	12.00	Thomas.
Spoke shaves, Stanley No. 151.....	10	6.50	Snelling.
Spoke shaves.....	100	65.00	Various camps.
Sponges.....	55	55.00	Riley.
Sponges, large.....	600	300.00	Various camps
Squares, steel, 14 by 24 inches.....	4	12.00	Washington
Steel squares, Sargent No. 100.....	20	60.00	Snelling.
Squares, Starrett.....	8	40.00	Riley.
Squares, assorted.....	109	325.00	McIntosh.
Squares, steel, 12-inch body 8-inch tongue.....	8	24.00	Thomas.
Squares, various types.....	200	600.00	Various camps
Stains.....gallons.....	2,000	3,000.00	Do.
Stands, engine.....	100	4,000.00	Do.
Stand, emery, complete.....	1	25.00	Crook.
Staples, insulated.....gross.....	500	125.00	Various camps
Hasps and staples, 6-inch.....	1,000	200.00	Do.
Stapler and staples.....	1	200.00	Grant.
Starters, for motors.....	2	30.00	Devens.
Starters.....	2	100.00	Crook.

Army vocational training equipment requested which can not be supplied from surplus to date, Jan. 15, 1921—Continued.

Article.	Amount.	Cost.	Camp.
Steamers and still, amber.....	1	\$25.00	Devens.
Steel stirrups for scaffold.....	8	8.00	Snelling.
Steel, sheets, 3 by 8 feet.....	20	7.20	Wayne.
Steel, bars, 1 by 1 by 10.....	36	108.00	Do.
Steel, tool.....pounds..	175	35.00	Sam Houston.
Steel.....do.....	275	55.00	Rosecrans.
Do.....do.....	10,000	2,000.00	Various camps.
Steel, wool, No. 2.....do.....	50	5.00	Snelling.
Stencil, machine.....	2	20.00	Wayne.
Stencil, machine, Jumbo diagraph.....	1	10.00	Grant.
Stencil, machine.....	80	800.00	Various camps.
Steering mechanism, complete.....	2	150.00	Riley.
Sticker, American.....	1	3,000.00	Snelling.
Sticker machine.....	1	3,000.00	Grant.
Do.....	4	12,000.00	Various camps.
Stitchers, corrugated.....	20	600.00	Devens.
Stitchers, smooth.....	20	600.00	Do.
Stitchers.....	14	420.00	Sherman.
Screw plates, automobi'e.....set..	1	30.00	Monroe.
Stocks for bolt-threading dies.....	2	10.00	Allen.
Stones, oil.....	2,000	2,000.00	Various camps.
Soapstone, 25 pounds each.....sacks..	40	50.00	Do.
Stops, bench.....	500	250.00	Do.
Stoppers.....	1,000	50.00	Do.
Stones, oil.....	80	400.00	Do.
Straightedge, 6-inch.....	2	2.00	Snelling.
Do.....	100	100.00	Various camps.
Straps, pine, $\frac{1}{2}$ or $\frac{3}{4}$ inch.....	1,000	20.00	Honolulu.
Straps, pine, various sizes.....	400	8.00	Meade.
Straps, pipe, $\frac{1}{2}$ inch.....	400	8.00	Sherman.
Straps, pine, $1\frac{1}{2}$ -inch.....	500	10.00	Do.
Straps, pipe, $\frac{1}{2}$ -inch.....	400	8.00	Do.
Sulphide, hydrogen.....gallons..	5	10.00	Lewis.
Supports, steel, book.....	200	20.00	Devens.
Supports, book.....	200	20.00	Riley.
Do.....	1,000	100.00	Various camps.
Surfacer, sing'le (with motor).....	1	600.00	Snelling.
Surveying instruments.....	50	8,750.00	Various camps.
Switches.....	3,000	2,500.00	Do.
Tracing cloth.....yards..	150	75.00	Grant.
Do.....rolls..	100	1,500.00	Various camps.
Tracing paper.....yards..	150	30.00	Grant.
Do.....rolls..	100	700.00	Various camps.
Squares, T, 28-inch or large.....	2,000	2,000.00	Do.
T squares, 28 inch or larger.....	100	100.00	Honolulu.
Tables, welding.....	8	160.00	Wayne.
Tables, oak, 28 by 35 inches.....	20	400.00	Do.
Tables, various.....	53	2,120.00	Grant.
Tables, library.....	2	40.00	Vall.
Table, saw, with motor.....	1	500.00	Snelling.
Table, billiard.....	1	100.00	Do.
Table, pool.....	1	100.00	Do.
Tables, folding, paste, 6-foot.....	2	10.00	Do.
Tables, office.....	30	600.00	Wayne.
Tabulating machine.....	1	200.00	Grant.
Tacks, thumb.....gross..	10	24.00	Honolulu.
Tacks, various sizes.....pounds..	500	50.00	Grant.
Tacks, thumb.....	1,000	10.00	Riley.
Do.....	10,000	100.00	Various camps.
Tapes, linen, measuring, 50-foot.....	2	2.00	Devens.
Tape, insulating.....rolls..	50	10.00	Honolulu.
Tapes, measuring, metallic, 50-foot.....	4	6.00	Lewis.
Tape, assorted.....pounds..	300	150.00	Meade.
Tape, friction.....do.....	1,000	400.00	Various camps.
Tapes, steel, measuring.....	200	400.00	Do.
Tapplets, No. 4112, $\frac{1}{2}$ -inch, G. I.....	10	5.00	Jay.
Taps and dies.....sets..	500	1,500.00	Various camps.
Tees, National Metal Molding, No. 335.....	12	6.00	Devens.
Tees, for conduit.....	300	200.00	Honolulu.
Telephones.....	50	600.00	Dix.
Do.....	600	7,200.00	Various camps.
Tenoner machine, small.....	2	1,800.00	Grant.
Tenoning machine, with motor, American, No. 1.....	1	1,000.00	Snelling.
Tensile strength machine.....	1	2,000.00	Grant.
Tents, fly, wall, large, complete with poles, pins, and ropes.....	2	20.00	Thomas.
Terminals, copper.....	500	15.00	Washington.
Trest blocks, engine.....	2	40.00	Ontario.
Tresting machine, grain.....	3	150.00	Dix.

Army vocational training equipment requested which can not be supplied from surplus to date, Jan. 15, 1921—Continued.

Article.	Amount.	Cost.	Camp.
Test set, No. 280 Weston.....	1	\$35.00	Devens.
Testing set.....	1	50.00	Sherman.
Testing machine.....	2	200.00	Grant.
Tester, moisture, Ames.....	1	50.00	Sherman.
Tester, Babcock.....	2	20.00	Do.
Testers, cell, Springfield.....	200	200.00	Various camps.
Thermometers, dairy floating.....	24	24.00	Sherman.
Thread, assorted for tailoring.....spools..	1,000	100.00	Honolulu.
Thread, assorted.....do.....	5,000	500.00	Various camps.
Tin, phosphorus.....	100	30.00	Grant.
Tire, forms, iron.....	9	120.00	Sherman.
Tongs, assorted.....	2,000	2,000.00	Various camps.
Torches, gasoline, various types.....	200	1,500.00	Do.
Tractors, Cleveland.....	4	3,600.00	Snelling.
Tractors.....	11	8,100.00	Various camps.
Trammels, extension steel beam.....	2	4.00	Sherman.
Transformers.....	500	75,000.00	Various camps.
Transformer oil.....gallons..	1,000	800.00	Do.
Transmission.....	50	2,000.00	Do.
Traps, assorted.....	24	12.00	Meade.
Trays, zinc, 30 by 42 inches.....	5	10.00	Do.
Trestles, draftsmans.....	1,000	2,500.00	Various camps.
Triangles, celluloid.....	4,000	2,000.00	Do.
Trier, grain, 38 inches over all.....	1	25.00	Dix.
Trimmers, wood.....	2	50.00	Snelling.
Tripods, camera.....	100	500.00	Various camps.
Trowels, garden, steel.....	24	24.00	McIntosh.
Trowels, assorted.....	25	25.00	Meade.
Do.....	18	18.00	Thomas.
Trucks, electric.....	300	300.00	Wayne.
Truck book.....	1	30.00	Grant.
Trucks.....	3	90.00	Dix.
Tubes:			
Standard porcelain.....	5,000	50.00	Honolulu.
Condensing.....	2	6.00	Dix.
Porcelain.....	50,000	500.00	Various camps.
Tubing:			
Copper.....feet..	250	35.00	Rosecrans.
Rubber.....do.....	1,000	100.00	Various camps.
Turpentine.....barrel..	1	65.00	Snelling.
Do.....gallons..	5	6.00	Funston.
Do.....do.....	200	250.00	Various camps.
Twine.....pounds..	24	12.00	Thomas.
Do.....do.....	72	36.00	Lewis.
Typewriters.....	20	1,350.00	Ross Field.
Remington.....	10	675.00	Grant.
Underwood.....	10	675.00	Do.
Do.....	12	810.00	Allen.
Typewriter desks.....	50	1,000.00	Grant.
Vacuum system, sectional cut, Stewart.....	1	20.00	Riley.
Valve grinding compound, Clover.....cans..	6	9.00	Ontario.
Valve grinding compound.....pounds..	25	6.00	Rosecrans.
Valves:			
Inside.....	500	25.00	Devens.
Tool.....	2	2.00	McIntosh.
Tire, inside.....	50	2.50	Storun.
Valve tool.....set..	1	3.00	Ontario.
Valves, assorted.....	10	20.00	Hot Springs.
Valve stems.....	200	10.00	Devens.
Varnish, interior.....gallons..	10	40.00	Snelling.
Varnish, spar.....do.....	2	8.00	Rodman.
Varnish.....do.....	1,000	4,000.00	Various camps.
Vibrators, pneumatic.....	15	25.00	Grant.
Vises, assorted.....	2,000	8,000.00	Various camps.
Voltmeters.....	400	22,000.00	Do.
Vulcanizing outfits.....	20	7,000.00	Do.
Wavemeter, triple-range.....	1	25.00	Wadsworth.
Wavemeter, Kolster.....	1	25.00	Meade.
Washers.....pounds..	5,000	500.00	Various camps.
Waste, cotton.....do.....	10,000	500.00	Do.
Welding outfits.....	20	8,000.00	Do.
Wiring, assorted commutator (Ford).....	1	10.00	Riley.
Wiring, complete.....	2	20.00	Do.
Musical instruments.....	6	500.00	Benicia Arsenal
Wire, R. C.....feet..	2,000,000	40,000.00	Various camps.
Lumber, assorted.....board feet..	2,000,000	200,000.00	Meade.
Woodworking machine.....	1	1,500.00	Thomas.
Woodworking machinery.....		3,000.00	Wright Field.
Woodworker, Universal.....		1,500.00	McIntosh.
Wrenches, assorted.....	10,000	5,000.00	Various camps.
Zinc.....ton..	1	20.00	Grant.
Total.....		1,758,085.10	

TRAVELING EXPENSES OF CIVILIAN EMPLOYEES.

Mr. ANTHONY. You are asking for \$100,000 for traveling expenses of civilian employees?

Col. REES. Yes, sir.

Mr. ANTHONY. How extensive are the trips required to be made by your civilian force?

Col. REES. The estimated cost of civilian travel, including subsistence, is 10 cents per mile. The amount asked for will allow approximately 600 miles of travel per annum for each civilian educator. Many civilian educators will not travel at all. Others, such as educational consultants, must travel several thousand miles per annum in order to cover the territory in their respective areas. It is essential to the successful carrying out of our educational program that the consultants and certain other educators carry their knowledge, experience, and advice to all places where Army educational work is conducted. The amount asked for is the minimum considered necessary for this purpose.

Mr. ANTHONY. In connection with these items I wish you would put in the record a statement showing the amount that will be expended during the current year for the same purpose.

Col. REES. Yes, sir. The amount allotted for this purpose for the current fiscal year is \$150,000.

PRINTING AND BINDING.

Mr. ANTHONY. For printing and binding you are asking \$345,000?

Col. REES. The Army is undertaking the preparation and furnishing of the necessary manuals in each of the educational courses and vocations taught. Assuming 100,000 men under instruction, this will allow \$3.45 per man for supplying course material. This is a relatively small per capita sum for this purpose, considering that each man may take several courses during a year.

Mr. ANTHONY. In your elementary educational work can you not buy the textbooks and manuals required for that service?

Col. REES. No, sir; they do not exist; that is, not for the purpose of adult education. Moreover, we can produce them cheaper in this way.

Mr. ANTHONY. Where do you have this printing and binding done?

Col. REES. We have had most of it done commercially in Chicago, up to date. I might say, however, that we have not done up to date more than \$140,000 worth.

Mr. ANTHONY. That has been done this year?

Col. REES. Yes, sir.

Mr. ANTHONY. Is that work done by letting contracts for the specific items?

Col. REES. That amount of money was provided from funds not appropriated by Congress.

Mr. ANTHONY. Where did you get the money?

Col. REES. From welfare service funds donated by the welfare organizations when they withdrew from their activities.

Mr. ANTHONY. How will you expend this money, if Congress appropriates the amount you ask for, \$345,000?

Col. REES. We hope to expend it almost entirely at the Government Printing Office.

MISCELLANEOUS EXPENSES.

Mr. ANTHONY. Under the heading of miscellaneous expenses you are asking for \$100,000.

Col. REES. This sum is to cover miscellaneous items not mentioned in the items already discussed, and experimental work embodying new methods and material in education. The development of the use of moving picture films for classroom use is one of the subjects contemplated.

Mr. ANTHONY. You have charge of the recreational work as well as the educational work?

Col. REES. Yes, sir.

Mr. ANTHONY. All of the items you estimate for here are to be expended for educational work?

Col. REES. Yes, sir.

Mr. ANTHONY. And you get your money for recreational work out of another appropriation?

Col. REES. Yes, sir; out of the appropriation for military post exchanges.

Mr. CRAMTON. Col. Rees, you spoke of 100,000 men being the ideal at which you are aiming, even in an army of 150,000 men, and I take it that this estimate you are defending was based upon the hope of the realization of that ideal?

Col. REES. Yes, sir.

Mr. CRAMTON. If the work should be continued at about the pace at which it is now going on, in an army of 150,000 men, what effect would that have on this item? If we have an army of 150,000 men and in that Army we continue this work at about the scope at which it is now being carried on, in other words, instead of figuring on a very great expansion to what seems to be a rather impossible limit, if you were to figure on continuing the work you now have, in an Army of 150,000 men, what appropriation would you require? I would be glad to have a statement of that kind in the record.

Col. REES. That data will be included in the statement headed "Administration and policy of education and recreation branch." I might say, speaking of the numbers that we had enrolled, that the October enrollment is 54,500 men. That was the first month's enrollment. Last October we had between 15,000 and 20,000 enrolled and the number increased to 55,000 by February. I think we can look for a very marked increase over the 54,000.

Mr. CRAMTON. On the other hand, what effect will this have? A large number of the men who are coming in as recruits are illiterates. If recruiting is virtually stopped by reason of the reduction of the size of the Army, what effect would that have?

Col. REES. It would probably stabilize the enrollment to an appreciable extent.

Mr. CRAMTON. At about 54,000?

Col. REES. No, sir; the 54,000 enrollment was in October. We have to include all the enlistments since that time. We have had an expansion of the school facilities since that time, and I should say that one month after the stopping of enlistments the enrollment would give us what would probably be a stable figure.

Mr. CRAMTON. What is your estimate of the enrollment to-day?

Col. REES. About 60,000. I would like to say right there, if I may, as having a bearing on the use of officers and enlisted men, that the Army is really teaching in the technical services some 48,000 men in addition.

Mr. CRAMTON. But you were not figuring that in this appropriation, and it would be in addition to the 100,000.

Col. REES. Yes, sir.

Mr. CRAMTON. From October to January, three months, there has been an increased enrollment of 6,000 men, or 2,000 a month.

Col. REES. Yes.

Mr. CRAMTON. If the enlistment process is stopped—and it seems likely it will be stopped in the course of the next two months, because this session of Congress ends on the 4th of March—at the same rate at which your enrollment has been increasing, you would have 4,000 more, which would give you about 65,000 enrollment, which would be stabilized at about your limit and about two-thirds of the number your estimate is based on.

This is a lump-sum appropriation in the widest language in which it is possible to make it. If we give you the \$5,729,500 you are asking for on your program of 100,000 men enrolled, and it happens that you have only 60,000 men enrolled, it will be very possible for you to spend the money just the same, because it is not based at all upon the enrollment, and it will enable you to make your program a little more elaborate for those who do enroll.

Col. REES. Yes, sir; it will.

Mr. CRAMTON. It will make possible a rather extravagant program for those who do enroll.

Col. REES. This is just a new development, Mr. Cramton. A program such as we could have out of the \$5,000,000 would never reach what you could call extravagance.

Mr. CRAMTON. I have been trying to develop whether or not it is true that it is based upon the maximum possible attendance instead of being a minimum.

Gen. HAAN. That estimate is \$11,700,000. That was not based upon maximum attendance but upon expected attendance.

Mr. ANTHONY. I would like to ask you about the changes in wording which you have made in this item.

Gen. HAAN. Before you take up the wording, may I ask if it would be permissible for me to submit letters that have been written in reply to a request from me giving frank statements by corps area and other important commanders, who have had charge of the educational work? I have here extracts from such well-known commanders in the Army as Gen. Liggett, of the Ninth Corps Area; Gen. Summerall, who commanded the First Division; Gen. Harbord, who commanded the Second Division, and others.

Mr. ANTHONY. We are trying to keep down the size of the record, and I would suggest that if you could have extracts made from the letters of each of these officers in reference to that we would be glad to have it.

Gen. HAAN. May I be permitted to include about three pages of extracts from these letters?

Mr. ANTHONY. If you will condense that as much as possible, we will be glad to have it.

Gen. HAAN. I will do that. I will say that I have here all the letters I have received from the general officers. Without taking any particular pains in selecting certain men I wrote to officers who are generally well known, and I have not held out any letters at all. I have put them all in just as I got them.

(The extracts referred to are as follows:)

EXTRACTS FROM LETTERS OF CORPS AREA AND DIVISION COMMANDERS CONCERNING THE VALUE OF EDUCATION AND RECREATION IN THE ARMY.

Maj. Gen. H. Liggett, headquarters Ninth Corps Area, San Francisco, Calif., December 20, 1920:

"The present educational and vocational training system has been in operation in this corps area for about one year. That this training is desirable and beneficial to both the soldier and the Government has been established beyond question. We have obtained definite results. Among the specific instances of such results are the following: Enlisted graduates of commercial courses are serving as instructors and clerks in many posts; graduates of printing schools are earning, since their separation from the service, high wages as civilian operators of linotype machines. A complete motion-picture film, written, filmed, developed, and projected by students in motion-picture photography, is being booked for showing to all posts in the corps area. Trained librarians are now available for post libraries. Upon their separation from the service, graduates of the tractor schools are in demand by the large tractor plants in California. These instances are only a few of the many definite results obtained.

"To summarize, education is a necessity; vocational training is a necessity; recreation is a necessity. The present scheme of operation has proven, by obtaining definite results, that the program of educational and vocational training and recreation can be successfully carried out in the Army. One thing more is necessary. No such program can be successfully carried out without adequate funds. By careful management, supervision of disbursements, and utilization of local facilities both in personnel and materials, the funds necessary can be kept to a minimum but this minimum must and should be provided."

Maj. Gen. C. P. Summerall, commanding general, Camp Dix, N. J., December 18, 1920:

"The only way by which any one can understand the magnitude and the far-reaching value of education and recreation to the Army and to the country is to visit the classes and the shops and see the attitude and the progress of the students, and the devoted zeal of the teachers. Those who are charged with its direction are so absorbed in the good they are doing that it comes as a shock to feel that any further evidence is required to insure its continuance. I request that you extend the most cordial invitation from me to any one who may be interested to visit Camp Dix and spend even a few hours inspecting the various activities of the education and recreation department.

"When the First Division went to Camp Zachary Taylor in the last days of September, 1919, it carried with it several thousand of the veterans who had borne the hardships and privations of campaign and battle and who had the development of manhood and character that could come only from the self-sacrifice and the ordeal through which they had passed. They were approaching the end of their enlistment and were destined to return to civil life without any skilled trade or profession commensurate with their intelligence, character, and experience. They found themselves sadly outdistanced by men of inferior type who had remained at home and acquired both skill and prosperity in the industrial world. The injustice was so great that we at once endeavored to give as many of them as possible a start in a new trade through the course of instruction in the vocational schools. Their country had allowed them to grow up in ignorance, but they had repeatedly offered their lives for it in battle in order that the ideals of this same country might endure.

"If it is not proposed to place the soldier in the light of a dependent upon the generosity of the community, the Government must make it possible to care for him in his station. The increased mentality and contentment derived from both the education and the recreation activities enable the soldier to absorb more effectively his military training, and he becomes not only a better citizen but he is a better soldier and a better American."

Maj. Gen. J. G. Harbord, commanding general, Camp Travis, Tex., December 2, 1920:

"The national defense act of 1916, by wisely providing for vocational training for our soldiers, showed Congress to be in advance of Army thought at that time. In complying with your request to give you my views as to the value of educational and vocational work in the Army I should preface them with the statement that when I was assigned to this division last winter on my return from France I looked on the new educational requirement in the service as one of those fleeting fads of which we have so many times been the victims in the 31 years I have worn the uniform. I approached it with the intention of carrying out the orders to the best of my ability, but with doubt as to the wisdom of the policy and much skepticism as to the possibility of combining it with the necessary military training, except to the disadvantage of the latter. I have changed my views, and I not only believe the educational and vocational work to be permissible in the Army, but eminently desirable.

"The occupational needs of a modern army are such that men to perform its varied requirements can never be had by the enlistment of specialists except in some great emergency demanding the mobilization of the entire population of military age. In this respect vocational schools are absolutely essential. Few of these trades can be successfully handled without some general education, and the trade schools and general education must therefore go hand in hand. Education is the basis of discipline to an army of free men, and there can be no army without discipline.

"In any army maintained by voluntary enlistment men must be offered some inducement to come to the colors. As an aid to recruiting since the war the educational and vocational schools have proved the best inducement that can be offered. They do not contemplate the Army as a career, but intend to return to civil life after obtaining the training desired. Meantime the Nation has a soldier, and upon completion of his enlistment another member of the great reserve upon which will fall the burden of defense in event of war. Next to an efficient, well-trained Army our country needs most a reserve of trained men in civil life. No longer can cheap campaign orators compare the millions spent on the Army with what might be achieved by spending the same amount on schools. For the same money we can now get both the Army and the schools.

"These men are not only made better soldiers, but vastly better citizens. The crime wave that is now sweeping this country from coast to coast is due to lack of discipline, unbalanced mentality, and misdirected education. The action of the American Legion in calling upon its membership to combat this condition is the evidence of what properly disciplined, mentally balanced, and trained men will naturally do when necessity arises. The foreigner who serves an enlistment and improves such opportunities becomes an enthusiastic American citizen, and he no longer is a unit in those illiterate masses whose ignorance is used by unscrupulous agitators and demagogues to serve personal ends.

"Naturally a school system can not be brought into being complete and perfect in all respects, and evolution takes time. To fully realize on time and money invested the educational work should be continued over a period of some time. The paramount need is permanence in the staff of instructors, and the recognition in tables of organization of the necessary commissioned and enlisted personnel."

Brig. Gen. George Bell, jr., commanding general (Camp Grant, Ill., December 21, 1920:

"Education and recreation work is producing wonderful results for the country and Army to-day, and nothing in this present generation has accomplished as much. These statements are borne out by the surprise and gratification expressed by prominent business men and others who have visited Camp Grant schools.

"Every effort is made to increase efficiency and production, and both at this station have improved daily, so that within another year it is believed the production, if money is obtained for work done, will pay for all the cost of the education and recreation school work here.

"Military efficiency also has been vastly improved by the education and recreation work for intensive training during the closed season in education and recreation work and during the open season in military work has brought excellent results in both.

"In a three-year enlistment, it has been demonstrated here, a man can be made an excellent soldier, a good citizen, and a valuable worker with a good trade and greatly increased wage-earning capacity."

Maj. Gen. David C. Shanks, headquarters, First Corps Area, Boston, Mass., December 24, 1920:

"I have served more than 40 years in our Army, and during all of that time I regard the appropriation for educational and vocational training as the most important beneficial and far-reaching of all appropriations. If absolutely necessary, other appropriations should be diminished, in order that educational and vocational work may be continued and expanded.

"For generations past the Army has unfortunately been regarded as a class separate and apart from the great mass of our fellow citizens. Except when stress of war has been upon our people they have taken small interest in military affairs. This appropriation for the educational and vocational training of young men is constructive, in that it accomplishes that most desirable purpose of bringing our people and our Army together.

"There is no college nor school nor university in our country that can begin to give a young man without means the opportunity now afforded by service in our Army.

"I urge, therefore, that the system now working so well be continued in force and effect. While it has been in existence less than two years, it has shown its great value, not only to the Army at large but to the great mass of our people as well."

Maj. Gen. R. L. Bullard, commanding general, Second Corps Area, Governors Island, N. Y., December 17, 1920:

"My own idea now and for years past has been, that for the men who come into the Army, education is almost of equal importance with the military training. Military training practically can not be complete or good without it. This is true of the soldiers who have even the simplest duties. As the duties of the soldier become more complicated, it is easily seen that education becomes more important to him.

"The system of education and vocational training introduced into the Army within the last two or three years, as shown by my own personal experience with parents of enlisted men, has helped to remove a former prejudice against service in the United States Army and against the uniform of the United States soldier. The parents of minors who have enlisted in the Army are now much more willing to see their sons continue in the service for the sake of the clean recreation and education that they are now receiving.

"In this corps area, some 60 per cent of the total enlisted strength have asked for education and vocational training. These numbers show the great popularity and the strong desire of the soldier for education and vocational training. To my knowledge there are old soldiers of years of service who are taking some form of it of their own accord.

"I visited the military university established by the Army for our enlisted men and officers in France. Among the civilian professors and instructors of that university I found the utmost enthusiasm. They were unanimous in saying that they had never seen as good and as effective instruction anywhere else given. Upon inquiry, I found it due to the uniform military discipline in control of the students. The same thing is aimed at, and can be obtained in the education and vocational training and recreation in the United States Army. Like results will follow, and these results as were the results in France, will be big out of all proportion to the investment of money in it because of the authoritative discipline and control exercised over students.

"The system of testing and grading, which is a part of education and vocational training, will enable the Army to decide for what kind of military work any enlisted man is competent or adapted. This is invaluable to the service.

CHANGE OF LANGUAGE.

Mr. ANTHONY. In the first line of the item on page 74 you are asking to omit the words "of the necessary civilian instructors in the most important trades," and you are substituting this language, "at post-camps, and stations, and within the District of Columbia, of the civilian personnel necessary to carry on educational and vocational training," which gives you practically wide-open authority.

Gen. HAAN. About the necessity for that, I can not speak authoritatively. I presume the officers who will handle the funds can explain the details of that.

Col. REES. That is simply to clear up possible difficulty in the matter of subsistence allowance while traveling.

Mr. ANTHONY. The purpose of the original appropriation for education in the Army was for vocational training, which means instruction in trades, and now this new language you are asking for would enable you to go out and hire civilian instructors for any branch of education which you chose to take up.

Col. REES. We had an interpretation of that by the Judge Advocate General in which it was very clearly stated what the intent of Congress was, and that general educational work was to be a part of it because it says civilian teachers may be employed to aid Army officers in giving such instruction, and part of this instruction may include vocational education either in agricultural or mechanic arts. That was essentially the wording of the national defense act and we are simply asking this change in the wording of the appropriation to make it conform with the vocational training section of the act of June 3.

Mr. CRAMTON. You believe the language you ask for here is entirely supported by the legislative act?

Col. REES. We do; yes, sir.

Mr. ANTHONY. You ask for the addition of the words "and other necessary" in connection with expenses. The original language limited you to the payment for traveling expenses?

Col. REES. Yes, sir.

Mr. ANTHONY. What are other necessary expenses?

Col. REES. Subsistence while traveling and a few items allowed by Army regulations, such as transfer of baggage, etc.

Mr. ANTHONY. You are also asking to insert this language, "For the printing and binding of textbooks, manuals, and other educational materials." That is to enable you to expend the item of \$345,000 you are asking for for printing and binding, for which you have had no provision.

Col. REES. No, sir; we have not as yet done any printing from appropriated funds.

Mr. ANTHONY. You want to omit the specifying words "carpenter's, machinist's, mason's, electrician's, and" asking for authority to purchase all tools, practically?

Col. REES. Yes, sir, it just makes it more general.

Mr. ANTHONY. What is the necessity for the addition of the words "and for such other purposes," near the bottom of page 74, in line 18?

Col. REES. That refers to the \$100,000 we are asking for for miscellaneous expenses. This is a new development in the Army and it is sometimes impossible to foresee just exactly what is needed. It will become more stabilized in the future.

Mr. ANTHONY. As a result of this proviso on page 75, how much money has been deposited in the Treasury: "*Provided further*, That farm products and the increase in live stock (including fowls) which accrue as incidental to vocational training in agriculture and animal husbandry, may be sold under such regulations as the Secretary of War may prescribe, and the proceeds of such sales shall be deposited in the Treasury of the United States to the credit of miscellaneous receipts"?

Col. REES. None; because we have not purchased anything from Government funds for agriculture or in the way of equipment of live stock.

Mr. ANTHONY. From what fund have you purchased that?

Col. REES. From the welfare service funds.

Mr. ANTHONY. What has been done with the increase?

Col. REES. That has reverted to a special fund, such as our post exchange or company fund, similar to that.

Mr. ANTHONY. How much money has accrued under such sales?

Col. REES. We simply have the general report from Camp Funston and Camp Grant that the income from the farm is paying all the expenses. We have not a detailed report on that.

Mr. ANTHONY. Ordinarily under the law in such circumstances you would be required to turn all the proceeds of such sales into the Treasury.

Col. REES. Would we, if we have not had any appropriation at all for the purposes of development?

Mr. ANTHONY. I think so.

Col. REES. Then it would be very hard to maintain the farm.

Mr. ANTHONY. It would require you to maintain the farm from appropriations given by Congress. Is the vocational training in agriculture which is carried on at the disciplinary barracks at Fort Leavenworth under your charge?

Col. REES. No, sir.

Mr. ANTHONY. Pertaining to the disciplinary work of the Army?

Col. REES. That was established and running long before we were established.

Mr. CRAMTON. To what extent have you engaged in training in agriculture?

Col. REES. According to our last report we had 672 men training for that.

Mr. CRAMTON. In what lines?

Col. REES. Most of them in agronomy and animal husbandry.

Mr. CRAMTON. That language in the first proviso on page 75, "that whenever possible officers, warrant officers, noncommissioned officers, or other enlisted men shall be detailed as instructors in the most important trades in lieu of civilian instructors" is proposed to be changed, and you want to take out the words "in vocational training." What would you say to striking out also the words "in the most important trades," so it would be required that whenever possible officers should be detailed as instructors in lieu of civilian instructors in all your activities?

Col. REES. I would agree with that.

Mr. CRAMTON. There is no reason for striking out the words "in vocational training" unless you strike out the words following.

Col. REES. Yes, sir.

Mr. CRAMTON. Can you tell us how many commissioned officers and how many warrant officers and how many noncommissioned officers and enlisted men are now detailed as instructors in your work?

Col. REES. Our last report showed 356 officers and 1,210 enlisted men. We have no warrant officers, because they have not been appointed.

Mr. CRAMTON. Do the enlisted men receive any extra pay for this work?

Col. REES. There is a certain number of enlisted specialists authorized for this sort of work.

Mr. CRAMTON. Most of them are qualified as specialists?

Col. REES. Yes, sir.

Mr. CRAMTON. And they get higher pay?

Col. REES. I think most of them do not at the present time.

Gen. HAAN. There is a small percentage at the present time because I recall Gen. Harbord stating that they had an allowance of 15 specialists at their camp for 15,000 men.

PRODUCTS OF EDUCATIONAL TRAINING.

Mr. ANTHONY. What item do you wish to start with, General?

Gen. LORD. Col. Rees is still here on educational training. Do you want to see the recruits he has here?

Mr. ANTHONY. I do not think so. Mr. Cramton and Mr. Slomp, do you wish to see any of the recruits he has here?

Gen. LORD. There are two or three men outside who have just graduated from that illiterate school; they have had two or three months' training; we brought them here thinking you might wish to see what can be accomplished.

Mr. CRAMTON. They had the same school last year.

Gen. LORD. They have just recently come out of the school.

Mr. CRAMTON. If it would only take a few minutes, it would be interesting to see them.

Gen. LORD. All right; bring them in.

Maj. LENTZ. Mr. Chairman, at the request of Gen. Lord we had three of these men come here. They are from one of these recruit educational centers.

I will let the men introduce themselves.

(The first man introduced himself as Sergt. Peterson, the second man introduced himself as Pvt. Graham, and the third man introduced himself as Pvt. Lauri Lehtonen.)

Maj. LENTZ. At this school from which these men came there are 62 nationalities at the present time—every white racial group under the sun is represented there, Camp Dix.

Mr. ANTHONY (addressing Sergt. Peterson). What is your nationality, Sergeant?

Sergt. PETERSON. Swedish, sir.

Mr. ANTHONY. How long have you been in this country?

Sergt. PETERSON. I came here the first time in 1913; but I have not been here all the time; I have been going to sea; I have been sailing out of this country. I would stay here a month or so and then I would be going away for two or three or four months.

Mr. ANTHONY. When did you enlist in the Army?

Sergt. PETERSON. Last year; a year ago.

Mr. ANTHONY. Could you speak English when you enlisted?

Sergt. PETERSON. Very little, but not much.

Mr. ANTHONY. How much education did you have in Sweden?

Sergt. PETERSON. I think seven years, sir.

Mr. ANTHONY (addressing Pvt. Graham). What is your name?

Pvt. GRAHAM. Graham.

Mr. ANTHONY. Where are you from?

Pvt. GRAHAM. Louisiana.

Mr. ANTHONY. What did you say?

Pvt. GRAHAM. Louisiana.

Mr. ANTHONY. When did you enlist in the Army?

Pvt. GRAHAM. I enlisted in the Army in June.

Mr. ANTHONY. June of what year?

Pvt. GRAHAM. June 9.

Mr. ANTHONY. 1920?

Pvt. GRAHAM. Yes, sir.

Mr. ANTHONY. What education had you had?

Pvt. GRAHAM. None at all.

Mr. ANTHONY. None at all?

Pvt. GRAHAM. None at all.

Mr. ANTHONY. You never had been to the public school?

Pvt. GRAHAM. I went to the public school one month when I was 8 years old.

Mr. ANTHONY. And you did not know how to read or write?

Pvt. GRAHAM. I never knew the first letter in the alphabet.

Mr. ANTHONY. How far along are you now?

Pvt. GRAHAM. I have been graduated two months.

Mr. ANTHONY. From the elementary school at Camp Dix?

Pvt. GRAHAM. Yes; recruit educational center.

Mr. ANTHONY. You write now?

Pvt. GRAHAM. Yes, sir.

Mr. ANTHONY. And can read now?

Pvt. GRAHAM. Yes, sir.

Mr. ANTHONY. So you feel you got some real advantage from your Army service?

Pvt. GRAHAM. Yes, sir; I surely do.

Mr. ANTHONY. How old are you, Graham?

Pvt. GRAHAM. I am 20 years old; I was 20 years old on the 10th day of last September.

Mr. ANTHONY. How much time, since your enlistment last June, have you spent in military work; how many hours a day in drill?

Pvt. GRAHAM. In school?

Mr. ANTHONY. In drill.

Pvt. GRAHAM. In drill and school?

Mr. ANTHONY. Drill alone, military instruction.

Pvt. GRAHAM. Only about a couple of hours a day.

Mr. ANTHONY. Two hours a day?

Pvt. GRAHAM. Yes, sir; it would average about that much.

Mr. ANTHONY. You have been assigned to a company there, have you?

Pvt. GRAHAM. Yes, sir.

Mr. ANTHONY (addressing Pvt. Lehtonen). What did you say your name was—

Mr. SLEMP. Just a moment, Mr. Anthony; I wish to ask the sergeant here a few questions. [Addressing Sergt. Peterson.] Sergeant, just tell us what you do throughout the day from the beginning. You have reveille at what time?

Sergt. PETERSON. What is that, sir.

Mr. SLEMP. When is reveille; when do you get up in the morning?

Sergt. PETERSON. Five thirty.

Mr. SLEMP. Just tell us what you do from then on until you go to bed at night?

Sergt. PETERSON. I get out of bed at 5.30 and go out for reveille and come back in again and wash and eat breakfast; go out for calisthenics, one hour for calisthenics; then I go in to school for an hour; then I go back and drill one hour. Then, that afternoon at 1 o'clock I drill another hour; then I go to school for another hour.

Mr. ANTHONY. Another hour of calisthenics, do you mean?

Sergt. PETERSON. No, sir; calisthenics are carried on practically one hour; then after calisthenics I go to school for an hour.

Mr. ANTHONY. How long does school last in the morning?

Sergt. PETERSON. One hour, or an hour and a half. Afterwards I come back and drill one hour. Then I have nothing until the after-

noon about 1 o'clock, when I drill again for another hour from 1 until 2; from 2 until 3 I go to school again, and that is my day.

Mr. ANTHONY. From 3 o'clock until retreat is your own time and you have it for recreation?

Sergt. PETERSON. Yes, sir.

Mr. ANTHONY. And to do with as you please?

Sergt. PETERSON. Yes, sir.

Mr. SLEMP. Do you do any work around the camp in any way at all?

Sergt. PETERSON. Nothing only drill.

Mr. SLEMP. How about your work; about cleaning up your room?

Sergt. PETERSON. Yes, sir; I clean up the room; that is the first thing next after breakfast every morning.

Mr. ANTHONY. You help in sweeping out the barracks?

Sergt. PETERSON. Yes, sir; sweep out the barracks; yes, sir.

Mr. ANTHONY. Do you ever have kitchen police detail?

Sergt. PETERSON. Yes; I have kitchen police detail.

Mr. ANTHONY. You are doing your share, then, too, of the work of the company?

Sergt. PETERSON. Yes, sir; I have done a little of everything since I have been in the company, the steward work there of the company.

Mr. ANTHONY (addressing Pvt. Lehtonen). What is your name?

Pvt. LEHTONEN. My name is Lauri Lehtonen.

Mr. ANTHONY. What nationality are you?

Pvt. LEHTONEN. Finlander, sir.

Mr. ANTHONY. Finlander; how long have you been in this country?

Pvt. LEHTONEN. Six months and a half, sir; I came through the immigration office the 13th of June, last spring.

Mr. ANTHONY. The 13th of June?

Pvt. LEHTONEN. The 13th of June; yes.

Mr. ANTHONY. When did you enlist in the Army?

Pvt. LEHTONEN. On the 22d.

Mr. ANTHONY. Of June?

Pvt. LEHTONEN. Yes.

Mr. ANTHONY. How did you happen to enlist in the Army; had you ever been a soldier in Finland?

Pvt. LEHTONEN. No, sir; I went to Cleveland, Ohio; then after that I thought I would like to learn to speak and understand English and to get citizenship; that is the reason I enlisted.

Mr. ANTHONY. Who told you you could learn to speak English in the Army?

Pvt. LEHTONEN. Somebody—my partner—I knew it myself, and wanted to get to a place where I could only hear English and knew that I would learn.

Mr. ANTHONY. What has been your experience in the Army so far; do you like it?

Pvt. LEHTONEN. Yes, sir.

Mr. ANTHONY. You did not know any English at all when you went in?

Pvt. LEHTONEN. No, sir; I could not understand anything.

Mr. ANTHONY. You could read and write your own language?

Pvt. LEHTONEN. Yes, sir.

Mr. ANTHONY. Can you read and write English now?

Pvt. LEHTONEN. I can read very good and I can write some certain letters; but I can not write exactly good yet; but I practice all the time and I hope before I get out to be able to write good.

Mr. ANTHONY. And you also have received your military training at the same time you have received this educational training?

Pvt. LEHTONEN. Yes, sir.

Mr. SLEMP. Did you come to the Army to get an education; is that the idea?

Pvt. LEHTONEN. Yes, sir.

Mr. SLEMP. You thought you would get your education through the Army rather than going to the public school.

Pvt. LEHTONEN. I did not hear you, sir.

Mr. SLEMP. Just following out the question as to why you entered the Army, the real reason you entered the Army was to get training in the English language, was that it?

Pvt. LEHTONEN. Yes; that is why I entered, to learn.

Mr. SLEMP. Now, do you expect to leave the Army when your term of enlistment expires?

Pvt. LEHTONEN. I do not know, sir, exactly; I used to hope to get my citizenship papers and learn to read and write and speak English, and then I can not tell exactly what I would do.

Mr. ANTHONY. Well, we are much obliged, Major, for bringing these men here, and we are glad to have them.

Maj. LENTZ. I might say that people throughout the country are so much interested in this work—there are eight of these squads going out on Chautauqua this summer, the Chautauqua pays the bills, and only last week a private citizen of Boston had nine of these men up in Boston. He wrote to the Secretary of War and offered to bear all of the expenses, because the people of Boston—the big clubs and societies there—would like to see what the Army is doing. So if there is any indirect recruiting in this, and it is only indirect the people are paying the bills for it.

Mr. ANTHONY. Now, you would look at Sergt. Peterson there—sort of a finished product before he enlisted, would you not?

Maj. LENTZ. No, sir; he did not know how to read and write the English language, but he knew how to speak it.

Mr. ANTHONY. But he knew how to read and write in his own language?

Maj. LENTZ. In his own language; yes, sir. But we have them all. We have the American-born illiterate, as we have here; we have the non-English-speaking illiterate, and we have also found out that once in a while we find a non-English-speaking illiterate who learns very fast.

Mr. ANTHONY. The non-English-speaking illiterate presents the most difficult task that you have?

Maj. LENTZ. He does unless he is a man of high intelligence. I think these schools have proven beyond anything else that has ever been brought out that education only facilitates the use of intelligence.

Mr. ANTHONY. I want to ask Graham how it happened that, being down in Louisiana, he had no opportunity to attend the public schools.

Pvt. GRAHAM. My father got killed when I was only 3 years old. I had to stay home and work.

Mr. ANTHONY. You had to work?

Pvt. GRAHAM. I have worked all my life.

Mr. ANTHONY. There were public school facilities in your neighborhood?

Pvt. GRAHAM. Yes, sir. There were public schools, but I had to work. After I became big enough to work, I had to help my mother.

Mr. ANTHONY. There was no law in Louisiana compelling attendance at school?

Pvt. GRAHAM. No, sir; there was nothing that compelled a fellow to go.

Mr. ANTHONY. Up in my State you would have had to have gone to school.

Pvt. GRAHAM. Yes, sir. Well, after I became 16 years old, I believe, they passed a law there to that effect; but I thought I did not need any education right then.

Mr. ANTHONY. That's all.

WEDNESDAY, JANUARY 5, 1921.

RIFLE RANGES FOR CIVILIAN INSTRUCTION.

STATEMENT OF GEN. F. H. PHILLIPS, JR., IN CHARGE OF PROMOTION OF RIFLE PRACTICE.

Mr. ANTHONY. Gen. Phillips, you are in charge of the work of the promotion of rifle practice?

Gen. PHILLIPS. I am executive officer of the National Board for the Promotion of Rifle Practice.

Mr. ANTHONY. You are an officer of the National Guard, I believe?

Gen. PHILLIPS. I am an officer of the Tennessee National Guard, retired.

Mr. ANTHONY. How much are you asking in this bill for your work during the next fiscal year?

Gen. PHILLIPS. When the estimate was submitted it asked for \$600,000 for the work.

Mr. ANTHONY. That was cut to \$300,000.

Gen. PHILLIPS. I heard so; yes, sir.

Mr. ANTHONY. You had \$100,000 for the current fiscal year. Have you expended that sum?

Gen. PHILLIPS. Well, there is a balance of about \$7,000.

Gen. LORR. On December 1 there was \$37,906.42 unobligated and unallotted; he may have allotted something since that time.

CONSOLIDATION OF ITEMS AND ESTIMATES.

Mr. ANTHONY. You have some new language in this paragraph.

Gen. PHILLIPS. By turning to page 114 you will find that the language in that item has been moved from that place and put in this item. The finance department asked that the two items be consolidated, because it would be easier to handle as one item. The estimate last year for the first item was \$300,000 and the other \$200,000, but it appeared there was an unexpended balance under the second item of \$200,000.

Gen. LORR. \$202,218.63.

Gen. PHILLIPS. So we struck out that estimate and made it \$100, so as to keep the language in the bill, and this year the estimate made to cover both former items under the one item \$600,000, which

was approved by the Acting Secretary of War. However, a committee of the General Staff overlooked this approval and in making a comparison with previous estimates made comparison with only the first item of last year's appropriation and cut this to the bone.

Mr. ANTHONY. During the war there was not a great deal of activity in the War Department for the promotion of rifle practice, was there?

Gen. PHILLIPS. There was quite a bit of activity.

Mr. ANTHONY. Among the civilian population?

Gen. PHILLIPS. Yes, sir. They started out immediately to encourage rifle practice among those who were drafted, and the rifle clubs throughout the country undertook to train the men who had been called before they went into the service. But we were unable to furnish them any ammunition or rifles in excess of those that had already been furnished because of the needs of the Army.

RIFLE CLUBS RECEIVING AID FROM FEDERAL GOVERNMENT.

Mr. ANTHONY. How many active rifle clubs have you now that are receiving aid from the Federal Government?

Gen. PHILLIPS. We have about 2,700 rifle clubs that are active: all of them, however, do not draw from the Government, as they prefer to purchase their materials from the Government.

Mr. ANTHONY. Under the law you are authorized to furnish them ammunition?

Gen. PHILLIPS. Yes, sir.

Mr. ANTHONY. Rifles and instructors?

Gen. PHILLIPS. Yes, sir.

Mr. ANTHONY. How do you propose to use this appropriation?

Gen. PHILLIPS. The provision is \$200,000 for the expenses of team-competing in the national matches; that would take \$200,000, and we estimate another \$200,000 for the ordnance materials that would be issued, and \$200,000 for other provisions of the paragraph.

Mr. ANTHONY. Do you propose to buy that ordnance material instead of using it out of ordnance material that is already on hand?

Gen. PHILLIPS. The ordnance material that we issue, some of it is not of the kind that the Army is using now, and it has to be purchased.

Mr. ANTHONY. Of what class?

Gen. PHILLIPS. Twenty-two caliber rifles and the small ammunition for those rifles which we issue to schools and rifle clubs.

Mr. ANTHONY. You use service ammunition in the other rifles?

Gen. PHILLIPS. Yes, sir.

Mr. ANTHONY. For most of your work, do you not?

Gen. PHILLIPS. Yes, sir.

Mr. ANTHONY. How is that issued to you, or do you pay for it out of these appropriations?

Gen. PHILLIPS. We have not been paying for it out of these appropriations since we accumulated such a large amount for war purposes there is generally an allotment made of certain rounds of that ammunition making it available for issue for this purpose.

Mr. ANTHONY. And the rifles are handled in the same way?

Gen. PHILLIPS. No, sir.

Mr. ANTHONY. Are you aiming to pay for the rifles?

Gen. PHILLIPS. We have to turn over our funds to the Ordnance Department for the replacement of the rifles that we draw from them. You see, those rifles that are drawn are drawn from the reserve supply.

Mr. ANTHONY. Are the rifles turned over to the civilians themselves and do they own them?

Gen. PHILLIPS. No; they are turned over to the rifle clubs under bond.

Mr. ANTHONY. Why would it not be a saving of money if the Ordnance Department simply loaned you those rifles for such use?

Mr. SISSON. Because they have millions of them in the warehouses.

Gen. PHILLIPS. Not that kind of a rifle.

Mr. ANTHONY. What are you using to-day?

Gen. PHILLIPS. The model of 1903.

Mr. ANTHONY. The Springfield rifle?

Gen. PHILLIPS. Yes; the very best that the Ordnance Department makes.

Mr. ANTHONY. What service rifle is used in the Army now?

Gen. PHILLIPS. The model of 1903, United States magazine rifle.

Mr. ANTHONY. We are not using any of the war make of rifles?

Gen. PHILLIPS. No, sir; they are being issued by the Reserve Officers' Training Corps units in military schools as their equipment.

Mr. ANTHONY. Do you think the 1903 Springfield is the very best development in the way of a service rifle?

Gen. PHILLIPS. Well, in the hands of an American it can out-shoot any gun on the face of the earth. It did it over in Antwerp this year, where out of eight team matches the team we sent over won seven matches and got second place in the other.

Mr. ANTHONY. Do you know how many of those rifles we have in reserve?

Gen. PHILLIPS. No, sir; I do not.

Mr. ANTHONY. A very large quantity, I suppose.

Gen. PHILLIPS. I do not think so.

Mr. ANTHONY. We can perhaps get that information from the Ordnance Department. There must be a considerable number; and I bring that up for the reason that it has been the practice of the War Department to compel the National Guard and the rifle teams to buy these arms out of new appropriations instead of utilizing the Government property already on hand.

How much of the appropriation do you propose to use for civilian employees as instructors?

Gen. PHILLIPS. Well, we have never paid any civilian instructors, and will probably not from this appropriation.

CIVILIAN EMPLOYEES.

Mr. ANTHONY. How many civilian employees do you have?

Gen. PHILLIPS. There are seven clerks in my office and I believe six in the office of the director of civilian marksmanship.

Mr. ANTHONY. And they are paid out of this appropriation?

Gen. PHILLIPS. Yes, sir.

Mr. ANTHONY. Where does your salary come from?

Gen. PHILLIPS. From the National Rifle Association, of which I am secretary.

Mr. ANTHONY. You get no salary from the Government?

Gen. PHILLIPS. No, sir. The Assistant Secretary of War is president of the National Board for the Promotion of Rifle Practice; there are 15 members in all, five from the War Department and Army, five from the Navy Department, Navy and Marine Corps. and five from the country at large.

NUMBER OF RIFLE CLUBS AND MEMBERSHIP.

Mr. ANTHONY. In the 2,700 rifle clubs which you say are on your list and which are active clubs, how many individuals do you propose to have under instruction?

Gen. PHILLIPS. All of the membership that we can get out for practice; the membership of those clubs will run 116,000, and in addition last year we secured 3,900 individuals as individual members of the association.

Mr. ANTHONY. What is the age of the members of the clubs? Have you any limitation as to age?

Gen. PHILLIPS. Yes; they are from 18 to 45 years of age—military age.

Mr. ANTHONY. How do they run—largely among men who are eligible for enlistment in the Army, or are they among the older class of men who take up the work largely for diversion and sport?

Gen. PHILLIPS. The membership is principally the younger class of men; the older men in the clubs are valuable ones who serve as instructors. I said 18, but the board changed that age to 16 a couple of years ago.

Mr. Sisson. I was rather of the opinion that 16-year-old boys would make very much better members of your rifle clubs than 18 and 21 year old boys, because when they get to that age they commence to part their hair in the middle.

Gen. PHILLIPS. My statement covers what we call our civilian rifle clubs; we have the school rifle clubs in the high schools and military schools and colleges in addition.

Mr. Sisson. How would a community get in touch with your organization if they wanted to organize a rifle club?

Gen. PHILLIPS. Just by writing in to our office.

Mr. Sisson. I understand, but what is the requirement?

Gen. PHILLIPS. They have to have at least 10 members, have to locate a place where they can build a rifle range; they have to give bond for the equipment and provide somebody who can be used as an instructor and receive the approval of the adjutant general of the State.

Mr. Sisson. Is it generally known throughout the country?

Gen. PHILLIPS. It is very well known, but we have avoided for some time any newspaper publicity during the unsettled conditions because it aroused the interest of too many people in a thing of this kind who ought not to have it.

Mr. Sisson. If this were confined to the schools and to young boys from, say, 15 to 20 years old, I can see the very great benefit that would accrue to the country in the event of war. Such boys have a great deal of leisure time and take a great deal more interest in it than older men. I am in favor of enlarging this rifle club idea if it does not run into too many dollars, because I think it is a good thing.

teach young men to handle a rifle, know what to do with it and how to use it. A few years ago there was plenty of game in the country, and we had the best marksmen on the face of the earth. All of the squirrel hunters in the United States were marvelous marksmen, but marksmanship has deteriorated among the mass of the people because they do not use the rifle like they used to.

Gen. PHILLIPS. I would like to relate an instance of a young man formerly of the high schools of Washington, D. C., that we taught to shoot. After learning what we call indoor rifle range shooting he went to the range down the river that was operated by the Marine Corps and learned to shoot there; he kept at it and was finally made rifle instructor in the city schools.

Then there was a dean of a university in the South that operated a camp down in West Virginia, who called on me for an instructor, he wanted to employ somebody to instruct his school during the summer months. He had something like 200 boys there, and this young man goes down there every year to instruct that school for two months in the year. Recently I saw where he had entered one of the universities here in the District, and having been taken in as an instructor in rifle practice there. Last year he went to the matches at Camp Perry, Ohio. He was the first man who in competitions that had been going on for years ever made the possible score at a range of 1,000 yards in what is known as the Wimbledon match. He hit the bullseye 21 consecutive times.

Mr. Sisson. How many times was he supposed to shoot?

Gen. PHILLIPS. Twenty shots; but as he made a possible the rules required him to keep on shooting until he got out of the bullseye.

Mr. Sisson. And he made 21?

Gen. PHILLIPS. He made 21; and it was the first time that the possible was ever made in this match. And he finished second in the grand aggregate match and tied for first place in one or two of the other matches. You just see what the work of one person who gets started on that kind of work can do for the good of the Government. He will be a military asset to this country for the next 40 years.

INCREASE IN TRAVELING EXPENSES.

Mr. ANTHONY. General, I notice that you are asking for 6½ cents a mile?

Gen. PHILLIPS. Yes, sir.

Mr. ANTHONY. Instead of the old rate of 5 cents per mile for the commutation of travel expense of the men attending these matches?

Gen. PHILLIPS. Yes, sir.

Mr. ANTHONY. What is the reason for that?

Gen. PHILLIPS. At the time this bill passed a year ago, with the 5 cents provided, we had a railroad rate that was changed on the 1st of September.

Mr. ANTHONY. Is this 6½ cents supposed to cover the entire cost of that trip?

Gen. PHILLIPS. Yes, sir.

Mr. ANTHONY. The railroad fare?

Gen. PHILLIPS. The railroad fare, Pullman, and his meals en route, and then they are subsisted in the camp after they arrive there from this appropriation.

Mr. Sisson. Six and one-half cents per mile, going and coming?

Gen. PHILLIPS. That is correct.

Mr. Sisson. That is 13 cents per mile round trip.

Gen. PHILLIPS. Yes.

Gen. LORD. Mr. Chairman, on page 78 the Reserve Officers' Training Corps ask for 5 cents a mile. They travel under similar conditions.

Gen. PHILLIPS. They have overlooked something.

Gen. LORD. On page 114 is the item which has been consolidated with the paragraph under discussion. On July 1 there was a free balance under the appropriation of \$202,818.63 which was available for the current fiscal year. On December 31 last there was remaining a free balance under that appropriation of \$202,186.12, which combined with the \$37,906.42 unexpended under this paragraph leaves a balance of \$240,092.54, less such minor allotments as have been made under current appropriations during the month of December.

NOTE.—The above statement is in error with reference to the amount that is available under the combined paragraph for expenditure the current fiscal year. Instead of there being a balance of \$240,092.54 as stated available this current fiscal year there remains approximately \$30,000 only.

Mr. CRAMTON. I would be glad to have Gen. Phillips give a little information as to what you would do with the amount estimated by the department. You have spoken with reference to a \$600,000 appropriation. The department estimated \$300,000. Have you given any thought as to how that would be apportioned?

Gen. PHILLIPS. The \$300,000?

Mr. CRAMTON. Yes.

COST OF ATTENDING THE NATIONAL MATCHES.

Gen. PHILLIPS. Well, the cost of attending the national matches would be as originally estimated.

Mr. CRAMTON. \$200,000?

Gen. PHILLIPS. It would be \$200,000. We figured last year it would be \$180,000. The increased railroad rates made it necessary to increase the estimate. The paragraph under which these teams are drawn reads as follows: From regulations governing the national matches.

ESTABLISHMENT OF A SMALL-ARMS FIRING SCHOOL IN OHIO

There will be established and maintained at the Ohio State rifle range, Camp Perry, Ohio, a small-arms firing school for the instruction of citizens of the United States in marksmanship.

The governors of the States and Territories, the Board of Commissioners of the District of Columbia, and the commanding officers of the Reserve Officers' Training camps are each authorized to designate a civilian or school team of 15 members to attend the Small Arms Firing School at the Ohio State rifle range, Camp Perry, Ohio, from July 30 to August 28, 1920, inclusive, to receive instruction, practice, and participate in the national matches.

Such designated team and no other civilian team shall receive transportation, sleeping-car fare, and subsistence, or reimbursement therefor, at the expense of the United States within the limits of available appropriations.

Mr. CRAMTON. And this current year, I understand, it is \$180,000 for that purpose?

Gen. PHILLIPS. \$180,000 was the estimate.

Mr. CRAMTON. Did you have a deficiency?

Gen. PHILLIPS. No, sir.

Mr. CRAMTON. That was the estimate?

Gen. PHILLIPS. \$180,000 was the estimate. Only \$80,000 was provided. The number of teams attending was then limited by the Secretary of War so as not to exceed that amount for transportation. If only \$300,000 is provided this year, \$200,000 will be available for the national matches, and the other \$100,000 will be used as needed as provided in this paragraph. The appropriation will not be exceeded, but the work will be most limited.

STATEMENT OF COL. F. J. MORROW, GENERAL STAFF.

RESERVE OFFICERS' TRAINING CORPS.

Gen. LORD. The next item is "Quartermaster supplies, equipment" etc., Reserve Officers' Training Corps." Col. Morrow will handle that subject. It appears on page 78 of the bill.

Mr. ANTHONY. Have you an itemization of the expenditures under this heading?

Col. MORROW. Yes, sir; I have, Mr. Anthony; but I have a very short statement which I should like to read first and then give you the several items in the statement.

Mr. ANTHONY. Well, you are asking for——

Col. MORROW (interposing). \$6,475,000 for the Reserve Officers' Training Corps.

Mr. ANTHONY. For the actual number of reserve officers you have got, which are how many?

Col. MORROW. No, sir; these are not reserve officers; these are the students.

Mr. ANTHONY. I mean men that spend their time in these Reserve Officers' Training Corps camps?

Col. MORROW. Yes, sir.

Mr. ANTHONY. And is based upon the number that were in training the last time these camps were held, or the number you think will be in training the next year?

Col. MORROW. This is based on 100,000 students; there are 100,000 students in the Reserve Officers' Training Corps to-day.

Mr. ANTHONY. That you are preparing for?

Col. MORROW. Yes, sir; I feel the number ought to be greater than that; but this \$6,475,000 will provide only for 100,000, and it is desirable to extend it.

Mr. ANTHONY. You were given \$3,000,000 in the appropriation bill for the current year?

Col. MORROW. Yes, sir.

Mr. ANTHONY. How much did you actually expend for that purpose?

Col. MORROW. That is in the course of expenditure at the present time.

Mr. ANTHONY. How much of it has been allotted to you—all of it?

Col. MORROW. Yes, sir; we have it all allotted or provided for. There is a difference this year, though. I would like to bring out those things in this statement.

Mr. ANTHONY. Now, I want to insert in the record the itemized statement of the purposes of this expenditure. Now proceed with your statement.

Gen. LORD. There is an unallotted balance of \$374,454.92, and \$150,000 held in general reserve, so that the amount available is \$524,454.92.

Mr. ANTHONY. That lapses July 1, does it?

Gen. LORD. Yes, sir.

Mr. Sisson. Mr. Chairman, may I ask a question?

Mr. ANTHONY. Certainly.

Mr. Sisson. Do I understand that there are actually 100,000 now in the Reserve Officers' Training Corps?

Col. MORROW. Yes, sir.

Mr. Sisson. And you only had \$3,000,000, and it actually takes over \$6,000,000 to support that?

Col. MORROW. Yes, sir.

Mr. Sisson. So you will have a deficiency this year, then?

Col. MORROW. No, sir; that will all be brought out in this statement. [Reading:]

Military training in schools and colleges may be grouped into two classes according to the character and scope of the training and the various congressional enactments viz:

(a) *The Reserve Officers' Training Corps.*—Authority, sections 40 to 47-c, act of June 3, 1916, National Defense Act, as amended. Special regulations No. 44, War Department, 1919.

(b) *Schools and colleges other than those in the Reserve Officers' Training Corps.*—Authority, section 55-c, act of June 3, 1916, of the national defense act, as amended. Section 1225, Revised Statutes. Special regulations No. 45, War Department, 1920 General Orders, No. 70, War Department, 1913.

A. RESERVE OFFICERS' TRAINING CORPS.

The Reserve Officers' Training Corps was created by the national defense act of June 3, 1916, sections 40 to 47-c, as amended, primarily for the purpose of training young men and boys as officers for the Officers' Reserve Corps.

It is now functioning in accordance with the intent and spirit of the law; it has been in operation sufficiently long to establish its worth and importance as a system of officer development and replacement for the Officers' Reserve Corps; it has become thoroughly rooted in many of our most valuable educational institutions to the extent that they make substantial provisions for it in their fiscal budgets and in their academic schedules; and it is now evident that it will become in a few years the chief dependence for the recruitment of the Officers' Reserve Corps.

The Reserve Officers' Training Corps system permits military work to be done during the four years' school life of the young man, at a period when he is most receptive, and when military training interferes the least with his career. It combines theoretical and practical training both of which are essential to the development of the qualities of leadership, necessary for officers.

The Reserve Officers' Training Corps is being conservatively operated in the maintenance of high standards and economy, and it has been necessary to deny some 200 applications from schools and colleges during the past year to avoid exceeding the available resources.

At the present time there are slightly less than 100,000 students enrolled of whom some 53,000 are in colleges and the remainder in public schools and military academies.

Units of the various branches of the Army are established as follows: 104 Infantry, 11 Cavalry, 20 Field Artillery, 19 Coast Artillery, 11 Signal Corps, 18 Engineers, 8 Motor Transport Corps, 3 Ordnance Department, 3 Medical Department, Service, and 2 Veterinary.

Mr. ANTHONY. Where would you have a school that would teach field artillery?

Col. MORROW. We have 20.

Mr. ANTHONY. Do you mean that those 20 schools specialize in field artillery?

Col. MORROW. No, sir; some institutions have five different units. Take the University of Illinois, for instance; the University of Illinois has an infantry unit, a field artillery unit, an engineer unit, and a signal unit.

Mr. ANTHONY. The Government furnishes the equipment at these schools?

Col. MORROW. Yes, sir.

Mr. SLEMP. From entering.

Mr. ANTHONY. The Government furnishes equipment, which includes the actual matériel that is needed, and the uniforms——

Col. MORROW. Yes, sir; to the men.

Mr. ANTHONY. To the men that are enrolled?

Col. MORROW. Yes, sir.

Mr. ANTHONY. And furnishes subsistence?

Col. MORROW. To those who will take the last two years in college; the first two years in college they do not get it; but as an inducement for them to take the second two years they do receive it.

Mr. ANTHONY. That is commuted to a cash equivalent?

Col. MORROW. That is commuted.

Mr. ANTHONY. And I take it you pay a man's entire expense when he goes to the Reserve Officers' Training Corps training camp?

Col. MORROW. Yes, sir; that is right. [Reading:]

A list of States showing the number of units in each is attached.

Adequate equipment, animals, personnel, etc., to conduct instruction in each of the above arms is furnished.

One of the distinctive features of the Reserve Officers' Training Corps is its real democracy. It is as democratic as the operation of the draft. It exists throughout the length and breadth of the land. It knows no distinction of race, color, or creed. It is found in the private and public high schools, in the technical colleges, State universities, etc., in every section of the country, including Hawaii and Porto Rico.

Individual merit alone counts for advancement. Wearing the same uniform provided by the Government, the son of the millionaire and the son of the laborer share equally its benefits. Rich and poor, high and low, receive the same training. The disciplinary training makes for better citizenship, the physical training for healthier men, and the patriotic inspiration tends to love of country. During the summer camps of 1919 the average gain in weight of the 3,756 students was 5 pounds, and the average increase in chest measurement was 2 inches at expiration and 2 inches at inspiration.

Mr. ANTHONY. These 3,700 men whom you say were in summer training camps were selected men from the whole body?

Col. MORROW. Yes, sir.

Mr. ANTHONY. Of R. O. T. C. men that are specially designated to take this summer training?

Col. MORROW. That was two years ago, Mr. Anthony. This last year we had 6,300; this year we hope to have more; it was just started, right after the war.

Summer camps of instruction are provided for in the law, and it is so arranged that students may attend one or two summer camps of approximately six weeks each during their four years at school or college. One of these camps—in the first two years—is voluntary; the other is compulsory for the students in the last two years of

training and such students receive pay of \$1 per day while in camp. Students receive transportation to and from camps, subsistence, medical attention, and the use of uniforms and equipment.

Twelve camps were conducted in the summer of 1920 at which some 6,300 students were in attendance receiving intensive practical instruction for Infantry, Artillery, Cavalry, Engineers, Ordnance, Motor Transport, and Signal Corps. The physical benefit, patriotic inspiration, and sense of loyalty and obligation to country, received by the young men in these camps are of real value to them and to the Nation.

\$4,000,000 was appropriated for the fiscal year 1920 and \$3,000,000 for 1921. During those years there was a large amount of supplies on hand which contributed to the establishment and maintenance of the units.

The estimate for the year 1922 includes the items of expense heretofore separately shown in the quartermaster and the ordnance appropriations. This accounts for the apparent increase in this year's estimate. The estimate before you is \$6,475,000, which will provide for an enrollment of 100,000. This figure was submitted through a misunderstanding, because it was the intention to recommend an amount that would permit of training 125,000 young men.

The enrollment has remained virtually stationary for two years at the present number of 100,000, and, in order that the system may perform its functions of officer replacement for the Reserve Corps it should be given this increase next year.

To provide the funds necessary for such an increase would require \$1,000,000. That would make the total appropriation \$7,475,000. The training of 125,000 young men for that amount would represent an annual expenditure of less than \$60 each.

Mr. SLEMP. Now, right there this course covers how many years?

Col. MORROW. Four years.

Mr. SLEMP. The total number of officers you have in your estimate is 17,000; on the basis of 100,000 a year in college you would be turning out how many a year?

Col. MORROW. Of this 100,000 about 53,000 are actually in college; the others are secondary school boys.

Mr. SLEMP. Well, you would be turning out 25,000 a year, would you not?

Col. MORROW. No, sir; the scheme or arrangement that the War Department has before it at the present time is to maintain the Officers Reserve Corps; this has nothing to do with the Regular Army.

Mr. SLEMP. I understand that.

Col. MORROW. Practically 60,000 men who will have had this four years' training. That will take somewhere around five or six thousand a year; in figuring out the probable output of the course it is estimated that we will have to have something like 125,000 college men, not merely boys.

Mr. SLEMP. Yes; I follow you.

Col. MORROW. One hundred and twenty-five thousand college men, you understand.

Mr. ANTHONY. You now have approximately 63,000 reserve officers?

Col. MORROW. Yes, sir; in the Reserve Corps.

Mr. ANTHONY. And you figure that number will decrease gradually from year to year?

Col. MORROW. Yes, sir.

Mr. ANTHONY. And you will maintain your maximum of 50,000 by men selected from these in training?

Col. MORROW. Yes.

Mr. SLEMP. What I am getting at is you are turning out 25,000 a year?

Col. MORROW. No, sir; the output, Mr. Slemp, from 53,000 men last year—we do not know exactly—but it was less than 300; this year we are taking steps to make it easy to get a commission in the Officers' Reserve Corps and hope to increase it; but the problem of getting the young men to remain in it the four years, and then after the four years to accept a commission has not yet been wholly satisfactorily solved.

Mr. SLEMP. Have you graduated men from this training yet?

Col. MORROW. Yes, sir.

Mr. SLEMP. How many of them have accepted commissions?

Col. MORROW. As I say, I have not the figures, but I think, however, last summer it was less than 300; we hope it will be larger this coming summer.

Mr. SLEMP. How long has this system been in existence?

Col. MORROW. It has only had an opportunity to operate since the armistice, and you can realize that the first school year of 1918-19 was most unsatisfactory; last year, 1919-20, was the only full year; and generally there was the same reaction against military training in colleges that there was throughout the whole country, and we have had difficulty to maintain the units in some of the institutions because of that reaction.

Mr. CRAMTON. Of how much value to the country is the man who takes but one year's training?

Col. MORROW. The system does not permit it. Of course, if he drops out of college he drops out of the system, but it really demands that he stick to it for two years, through his freshman and sophomore years; then there is the second part of it, through the junior and senior years; then the next voluntary step is to go into the Officers' Reserve Corps.

Mr. CRAMTON. Of how much value to the country is the man who takes the two-year course?

Col. MORROW. I think with the type of training we are now developing that the two-year product will be a better product than we ever got before the war.

Mr. CRAMTON. You seem to value the college personnel much more highly than the high-school personnel that you get.

Col. MORROW. Yes, sir; the college man is superior to the high-school boy.

Mr. CRAMPTON. Then if you were to go ahead with an enrollment of 100,000 to only permit as much in the schools as the colleges fail to take up; and when this reaction against military matters passes somewhat and your matter goes along for the four-year period, why is it that you will not then have 15,000 or 20,000 men a year coming out from 100,000?

Col. MORROW. The graduate of the high school is not, by age, eligible for the Officers' Reserve Corps. You do not find men finishing high school who are 21 years of age. So the output from the secondary schools is not a direct source of replacement for the Officers' Reserve Corps.

Mr. CRAMTON. You hope to have 100,000 in the colleges?

Col. MORROW. Yes, sir.

Mr. CRAMTON. That is, on your four-year course?

Col. MORROW. Yes, sir.

Mr. CRAMTON. And you have 100,000. As soon as your training has had a period of four years to run so that you can really graduate men from the four-year class, you have 100,000 men coming out: will you not, out of that number, turn out 20,000 or 25,000 graduates?

Col. MORROW. No, sir; because casualties in college are very high.

Mr. CRAMTON. You start in with 100,000 college men.

Col. MORROW. But you do not get 100,000 graduates.

Mr. CRAMTON. You would certainly get 10,000, would you not? Or is it your experience that these men will not continue the second two years of the finishing?

Col. MORROW. That is the problem.

Mr. CRAMTON. You do not know about that?

Col. MORROW. No, sir.

Mr. CRAMTON. Then, before you ask Congress to carry the experiment beyond more than 100,000, why not work that out and see what you will do with 100,000, when you have a chance?

Col. MORROW. That can be done, sir.

Mr. CRAMTON. Are you not rushing the thing through to ask for this extension, when you do not know what your graduating class will be?

Col. MORROW. No, sir; I do not think so. There is no reason to doubt if we are given a sufficient number of officers and the equipment, which is in the service, and if it is supported in the same way in the next three or four years as it has been in the last two, we are going to make good.

Mr. CRAMTON. All right; is it not a fact that on the average 20 per cent of those who enter the freshman year graduate?

Col. MORROW. No, sir.

Mr. SLEMP. It is about 33½ per cent, I think.

Col. MORROW. It is only about one-third.

Mr. CRAMTON. One-third?

Mr. SLEMP. Yes, sir.

Col. MORROW. The casualties in some colleges are very large.

Mr. CRAMTON. That will give you 8,000 - starting with 25,000, the freshman year means 8,000 graduates.

Col. MORROW. You will not get that; you will not get one-third of the men who enter to take the second two years; for the enrollment in the junior year imposes obligations upon the student to attend the summer camp for six weeks, which is a very big item to him, and a serious obstacle.

Mr. CRAMTON. But if you have 25,000 men entering the freshman class, of those you only reach 33½ per cent, which brings it down to 8,000; then you will cut that further by the percentage of those who get enough of it the first two years.

Col. MORROW. Yes, sir; and you have got to make that big.

Mr. CRAMTON. And you do not know yet how much that cut will be?

Col. MORROW. No, sir.

Mr. CRAMTON. Do you think the 23½ per cent will absorb that?

Col. MORROW. No, sir; I do not.

Mr. CRAMTON. You do not know?

Col. MORROW. I do not; I hope it is so; I hope I am mistaken. I am more optimistic about it than many of the educators are.

Mr. CRAMTON. Is it not a fact that most of the optimistic gentlemen want to spring into bloom with all their bloom full blown?

Col. MORROW. No, sir; I do not think so.

Mr. CRAMTON. Rather than to go along and try the thing out for three or four years?

Col. MORROW. Of course, we can delay the development to the point where it will seriously interfere with the Officers' Reserve Corps.

Mr. Sisson. It was already filled at the close of the war?

Col. MORROW. Yes, sir. If this were extended to 125,000 or 150,000, it is questionable whether we could get them.

Mr. CRAMTON. The war produced more men fitted for the Officers' Reserve Corps than the schools would have produced during the same time without the war?

Col. MORROW. But the question is that the individual who took a six months' training and ended up in going through, say, one offensive, if he was not an educated man, would not be of as much value——

Mr. CRAMTON. But you are putting an "if" in there.

Col. MORROW. Yes. If they were men who had had college training and then six months' training in camp, ending up by going through an offensive, they are magnificent material for the Officers' Reserve Corps.

Mr. SLEMP. What is the contemplated size of the Officers' Reserve Corps?

Col. MORROW. Fifty thousand officers will map about a million men; you have about 1 officer to every 20 soldiers.

Mr. SLEMP. What is the efficiency life of the officer in the Officers' Reserve Corps?

Col. MORROW. I would say about 10 years. In other words, the bulk of the men who are in the Officers' Reserve Corps at the present time will not be an asset in 1928, except those holding high commissions.

Mr. SLEMP. In order to constantly keep the number at 60,000 men you ought to have how many under training in the colleges?

Col. MORROW. One hundred and twenty-five thousand. Now, it is possible that that may be reduced; it depends, as I have said, upon the quality of our work. If we can make this so popular that we can get 35 per cent or 50 per cent of the students to go through the second half and take a commission in the Officers' Reserve Corps that can be brought down to less than 125,000 college men.

Mr. ANTHONY. Col. Morrow, you say that land-grant colleges are compelled under the act of 1862, which established them, to carry on a certain degree of military training?

Col. MORROW. Yes, sir.

Mr. ANTHONY. Are they all operating under your R. O. T. C. training plan?

Col. MORROW. Yes, sir; they are the main dependence of the system.

Mr. ANTHONY. I want to insert in the record here a statement from President Stone, of the Purdue University, who, in company with President Pierson, of the Iowa College, called to see me and expressed their desire to attend the hearings, but not being able to remain in

the city to be with us have made a statement which greatly commends the work which has been done in that line.

Mr. SLEMP. Suppose there is a boy 16 or 17 years old who wants to take advantage of this opportunity to get an education and enters your training school, what does he get out of it, standing by the Government; I mean what does the Government furnish him?

Col. MORROW. For instance, the high-school boy receives a uniform.

Mr. SLEMP. Let us take the boy who is ready to go to college.

Col. MORROW. He goes to college and gets a uniform to start with; he gets nothing else for the first two years. At the end of the two years if he will sign a written certificate that he will continue in it during his junior and senior years, and will attend the compulsory camp between his junior and senior years of six weeks, he is given each month the money allowance of one soldier's rations; then when he goes to camp all his expenses are paid and he is paid \$1 a day for six weeks; that is all that the Government gives him then, when he graduates——

Mr. SLEMP. And the first two years he gets his uniform.

Col. MORROW. That is all.

Mr. SLEMP. Nothing for rations?

Col. MORROW. No; nothing but the uniform itself. Of course, there is the use of the equipment; he is furnished the uniform the first two years; the second two years he gets the uniform and the money value of one soldier's rations.

Mr. SLEMP. Is this appropriation the calculated amount for that purpose?

Col. MORROW. Yes, sir; I have all of those details, to which I am coming in a moment. Congress created a continuing obligation in the organic act in creating the Reserve Officers' Training Corps because its work is progressive, it requires four years for completion, and after stated periods, the students qualify for certain prescribed benefits. The amount asked for will permit of the fulfillment of the Government's part of the contract with the young man. There are also obligations to the educational institutions which have revised their academic courses and have expended funds to provide facilities for instruction. That completes the R. O. T. C. The second group of schools which is mentioned are those schools and colleges not in the Reserve Officers' Training Corps. There are 64 schools and colleges conducting military training under section 55-C of the national defense act of June 3, 1916, as amended and under 1225 of the Revised Statutes. Their standard is not as high and their work is less advanced than for the unit of the Reserve Officers' Training Corps, and the Government assistance accorded them is small. Nevertheless, they are a military asset to the country, and as they advance the character of their training, they are incorporated in the Reserve Officers' Training Corps. Last year there was only \$200 appropriated for these schools, just to retain the item in the bill. This year \$86,667 is requested to provide for the procurement of arms, tentage, and equipment, the transportation of such equipment, and the upkeep and repairs of these supplies.

Mr. ANTHONY. Are these schools called junior R. O. T. C.?

Col. MORROW. No, sir; they are not. The high schools and secondary schools are called the junior units, and they call the colleges senior units.

Mr. ANTHONY. What are the military schools called?

Col. MORROW. They are secondary schools and they are junior units.

Mr. ANTHONY. Some of them, however, are higher units?

Col. MORROW. Yes, sir; some of them are military colleges and the military colleges go up into the senior group.

Mr. CRAMTON. Does your statement show what sort of an organization you maintain for your R. O. T. C. work at a prominent college or university?

Col. MORROW. I did not quite catch that question.

Mr. CRAMTON. I want to know what sort of an organization you maintain for your R. O. T. C. work at a large college or university.

Col. MORROW. Take a large institution like the University of Illinois, that being one of the most advanced and one of the largest, they have something like 2,000 students.

Mr. CRAMTON. That is, in the R. O. T. C.?

Col. MORROW. Yes, sir. They have five different units of the service. They have all told, I think, 10 or 12 officers on duty at that institution. They have artillery equipment; they have animals; they have engineer equipment; and they have Signal Corps equipment.

Mr. CRAMTON. All of the instructors there are officers?

Col. MORROW. Yes, sir; an officer to represent each type of instruction that is given. When they get down to large colleges which have not compulsory training—for instance, an institution that makes every student take military work for the first two years, which, of course, is a tremendous source of strength to us, while another college, like Harvard and Yale, will not do that, and, therefore, the work is not nearly so far advanced in those institutions.

Mr. CRAMTON. How many do you have enrolled at Harvard?

Col. MORROW. I would say at Harvard around 165.

Mr. CRAMTON. How many instructors do you have there?

Col. MORROW. I should say about three.

SUBSISTENCE, UNIFORMS, GASOLINE, TRANSPORTATION OF SUPPLIES
AND MAINTENANCE OF ANIMALS.

Mr. ANTHONY. Let us take up the items which compose your appropriation. The first and largest item is one of \$3,687,795 for quartermaster items.

Col. MORROW. Yes, sir.

Mr. ANTHONY. For the payment of commutation of subsistence for advanced course students, the commutation of uniforms, the transportation of equipment and other supplies, the care and maintenance of animals, the supply of gasoline, oil, etc., for motor vehicles, etc. Is that figured upon the basis of the actual expense for the current year?

Col. MORROW. That is not based on the experience this year, that is, so far as our actual disbursements are concerned; it is based on the experience of this year item by item, and that is not the total estimate of so much per student.

Mr. ANTHONY. It provides for the training of an increased number of students?

Col. MORROW. No, sir.

Mr. ANTHONY. The same number?

Col. MORROW. Yes, sir.

Mr. ANTHONY. How much of your material in the way of equipment and supplies do you obtain from the Army surplus that is on hand, or do you buy it all new?

Col. MORROW. Whatever is on hand we receive without cost.

Mr. ANTHONY. For instance, subsistence, and things like that have to be purchased out of this appropriation?

Col. MORROW. Yes, sir.

Mr. ANTHONY. And uniforms have to be purchased new or taken out of the Army reserve?

Col. MORROW. Only partially; most of that is on hand.

Mr. ANTHONY. How much of this is for the purchase of new uniforms?

Mr. SLEMP. Why do you not itemize the \$3,000,000?

Col. MORROW. I can read off the various items that go to make it up but I did not want to go into too many details about it.

Mr. ANTHONY. I want to compliment you. I think you have made one of the most concise and at the same time complete statements presented to the committee.

Col. MORROW. I thank you very much, sir. I have the various items under separate headings, and under each heading I can tell you how much money is required.

Mr. SLEMP. Well, subsistence.

Col. MORROW. \$1,611,200. That is to provide for 10,000 students for 304 days, at 53 cents per day.

Mr. ANTHONY. The Quartermaster General says that he believes we can count on the value of the ration at 42 cents for the coming year, while you figure it at 53 cents.

Col. MORROW. Yes, sir; I figure it at the present prevailing rate.

Mr. ANTHONY. So if we succeed in cutting the rate to 42 cents during the next fiscal year, there can be a reduction here?

Col. MORROW. Yes, sir.

Mr. SLEMP. You do not have 10,000 taking those advanced courses do you?

Col. MORROW. No, sir; this does not take effect until next September, the next school year, when I hope we will have.

Mr. SLEMP. I was under the impression that a very large percentage of your 52,000 would be during the first and second years.

Col. MORROW. It is, sir.

Mr. SLEMP. And that you could not get out of the 52,000 as many as 10,000 for the last year.

Col. MORROW. No, sir; we have not during the present year. During the present year we have something like 5,400, but I think next year we will have 10,000.

Mr. SLEMP. If you only have next year what you had this year then the amount for subsistence would only be five hundred thousand and some odd dollars instead of over \$1,000,000.

Col. MORROW. Yes, sir. Of course, I feel it is our duty to get officers in the Reserve Corps, and therefore we are doing all we can in the hope that we are going to get a greater number in the advanced courses in order to get the desired number into the Officers' Reserve Corps. It is surely most undesirable to have the students drop out at the end of the second year. And we have increased it each year and the attitude of the incoming freshmen this year toward military

work is entirely different from what it was on the part of the outgoing seniors, that there is every reason to believe that the thing is going to go along with an increase in numbers for several years.

Mr. SLEMP. An increase of 100 per cent in a few months, it seems to me, would be a rather large increase.

Col. MORROW. From 5,300 to 10,000 next year would be 4,700 more, but I do not think that is any unusual increase and I hope it will be realized. Of course, if it is not this, the rate is fixed and it can not be expended.

Mr. DENT. You do not want to be short on their rations?

Col. MORROW. No, sir; and if we were we would be failing in our obligations.

Mr. ANTHONY. In this item you provide for motor vehicles?

Col. MORROW. Yes, sir.

Mr. ANTHONY. How many motor vehicles are you supplying these different training places?

Col. MORROW. The motor vehicles are wholly for instructional purposes, and amongst all of the units, I would say, it runs to something over 300.

Mr. ANTHONY. Do you have any motor vehicles supplied for training?

Col. MORROW. They are just for training.

Mr. ANTHONY. I mean, to accompany units when they are marching, and things like that?

Col. MORROW. Yes, sir. Take Field Artillery; they have some units organized as horse-drawn and others are motor-drawn.

Mr. ANTHONY. Could not the training you are giving be largely administered without the assignment of motor vehicles to the units and thus save the expense of maintaining them?

Col. MORROW. I do not think it could, Mr. Anthony. There are motor transport units, units that are devoted to the development of motor transport students, and they are the most popular of all, because the boys in the colleges, and especially through the West, are anxious to learn everything pertaining to motors, tractors, etc., that they volunteer to take those courses, and a boy who has taken a year or two years of this course can go out in the summer time and earn from \$100 to \$125 a month running a Ford tractor on a farm.

EQUIPMENT AND MAINTENANCE OF AIR SERVICE UNIT.

Mr. ANTHONY. I will go to another item. You are asking \$184 836.11 for the equipment and maintenance of air service units.

Col. MORROW. Yes, sir.

Mr. ANTHONY. Is that not rather expensive military training to undertake in the Reserve Officers' Training Corps?

Col. MORROW. Yes, sir; and it is the most expensive we have. There is a large amount of equipment on hand and the extension of those units is going to be very guarded; there are five units authorized so far and it is my opinion there will be no more authorized until they fully justify themselves.

PROCUREMENT AND MAINTENANCE OF SMALL ARMS.

Mr. ANTHONY. Then there is an item for the procurement and maintenance of ordnance supplies, equipment, ammunition, arms, etc., \$577,000.

Col. MORROW. There is some ordnance that has to be bought.

Mr. ANTHONY. What do you propose to buy?

Col. MORROW. I will ask Maj. O'Leary to answer that.

Maj. O'LEARY. I have an item for 1,000 gallery-practice rifles, caliber 22, \$50,000; all target material required for small arms and machine-gun practice has to be procured because there is no surplus on hand, with the exception of target cloth; practically the whole of the surplus has been used up.

Mr. ANTHONY. You are not proposing to purchase any service rifles?

Maj. O'LEARY. No, sir.

Mr. ANTHONY. Artillery, or anything of that kind?

Maj. O'LEARY. No, sir.

PROCUREMENT OF SIGNAL CORPS' EQUIPMENT AND SUPPLIES.

Mr. ANTHONY. Then there is an item of \$275,618.89 for the procurement and maintenance of Signal Corps' equipment and supplies.

Col. MORROW. I will ask Col. Moore to speak as to that.

Col. MOORE. That is to cover the procurement and maintenance of Signal Corps' supplies for all the units; that is, the Field Artillery, Coast Artillery, and Signal Corps, and it covers telephone, telegraph and radio stuff.

Mr. ANTHONY. Have you not been able to get all of that you need from the surplus that came over from the war?

Col. MOORE. Mr. Anthony, you know we went to war with Europe in such shape that we had to go over there and borrow from the French and the British all the radio stuff we used; we did not have any of our stuff was canned; it was obsolete. We have never been up to date in radio until now we are getting up to it.

Mr. ANTHONY. That is what the Signal Corps told us the other day, but they also told us they came out with an immense amount of radio equipment.

Col. MOORE. We did have, and we have now in storage, a supply of French radio equipment, but it is absolutely useless to us, except for so long as it will hold together in its present state, because we have to go to manufacturers and get them to manufacture sockets that we can adapt our new stuff to this old stuff, and we need to manufacture other spare parts, and nobody over here wants to do that.

Mr. ANTHONY. So there was no surplus of American radio equipment?

Col. MOORE. No, sir.

Mr. ANTHONY. And you propose to buy all new signal equipment?

Col. MOORE. We are getting that on hand right now; we are getting on our feet, and we are getting our own American-made equipment of all types, but quite a few items that are authorized by the regulations for the units, Coast Artillery, Field Artillery, and Signal Corps, have not yet been delivered to us.

Mr. ANTHONY. With 300 motor trucks in use by these units, you have an allowance for the repair and maintenance of the vehicles.

Col. MORROW. Yes, sir.

Mr. ANTHONY. Does that run into a pretty large sum?

Col. MORROW. No, sir. For the procurement of gasoline, oil, and grease for 300 motor vehicles—gasoline, \$18,600; oil, \$710; grease, \$300—and for upkeep and maintenance of motor vehicles and equipment issued to 12 motor transport units and Field Artillery units, \$15,000. Those make up the two items.

PHYSICAL EXAMINATIONS OF STUDENTS AND VETERINARY MEDICINES
AND ATTENDANTS FOR ANIMALS.

Mr. ANTHONY. For the payment of the physical examinations of students where it is impracticable to have them examined by a member of the Army Medical Corps, and for the furnishing of veterinary medicines and attendants for Government animals, you are asking \$15,750.

Col. MORROW. Col. Wolfe will speak as to that.

Col. WOLFE. The rate for the examination of a student is \$1, and the estimate for veterinary service is on the basis of \$5 per animal per year. That is a little bit higher than we find it in the Army service, due to the fact that civilian veterinarians are called in to attend them and that civilian druggists furnish medicines on prescription.

Mr. ANTHONY. Before a man is admitted into the Reserve Officers' Training Corps he must undergo a physical examination?

Col. WOLFE. Yes, sir.

Mr. ANTHONY. And if there is no Army doctor near he gets that examination from a local doctor?

Col. WOLFE. He does.

Mr. ANTHONY. And you allow \$1 a man for it?

Col. WOLFE. That is the rate that has been allowed hitherto; yes, sir.

Mr. ANTHONY. And this is to cover that cost?

Col. WOLFE. Yes, sir.

FOR MAINTENANCE OF SUMMER CAMPS.

Mr. ANTHONY. For the maintenance of summer camps of instruction for 12,000 students, including subsistence, transportation of students, and equipment, etc., you are asking \$1,724,000. How many did you have in camp last year?

Col. MORROW. Six thousand three hundred.

Mr. ANTHONY. And you think that number will be doubled this next year?

Col. MORROW. Yes, sir.

Mr. ANTHONY. You base this expense on—

Col. MORROW (interposing). Our experience of the last two years.

Mr. SLEMP. When is a boy supposed to become a member of the Reserve Officers' Training Corps—when he enters college?

Col. MORROW. Yes, sir; we get them in the freshman year.

Mr. SLEMP. And he does that without signing anything at all?

Col. MORROW. That depends on the institution.

Mr. SLEMP. He simply becomes a member of the Reserve Officers' Training Corps?

Col. MORROW. No. If it is an institution that requires their students to take a two years' course, then he automatically comes into the Reserve Officers' Training Corps, although there are some exemptions; there being a general exemption for men who served during the war.

PROCUREMENT AND MAINTENANCE OF ENGINEER CORPS EQUIPMENT,
SUPPLIES, ETC.

Mr. ANTHONY. You are asking \$10,000 for the procurement and maintenance of Engineer Corps equipment, supplies, etc.?

Col. MORROW. Yes, sir. These Engineer units are conducted in the technical engineering colleges of the country, and we have a table of equipment for the standing Army that goes to them, but in order that they may conduct practical work in engineering construction, in the buying of timber, etc., for bridge work, for trench work, etc., we allow \$500 to each unit per year.

Mr. ANTHONY. You have these summer camps separated into different classes, have you not?

Col. MORROW. Yes, sir.

Mr. ANTHONY. You have summer camps for the selected men of the senior unit, as you call it?

Col. MORROW. Yes, sir.

Mr. ANTHONY. And also separate camps for the men of the junior units?

Col. MORROW. Yes.

Mr. ANTHONY. They have been held at different places?

Col. MORROW. Senior and junior infantry camps were held together. It is thought that the high school boys will now be attracted to the civilian training camps, which is under another provision of law and which is a feature of the development of the Enlisted Reserve Corps, and I think that item comes next for your consideration.

Mr. ANTHONY. Do you propose to hold these junior camps in connection with the civilian training camps?

Col. MORROW. They will not be Reserve Officers Training Corps camps, because if they draw students to those camps they come under the provisions of section 47d, national defense act.

Mr. ANTHONY. Do you propose to hold junior Reserve Officers Training Corps camps during the next year?

Col. MORROW. No, sir; the idea is to have them turned over

Mr. ANTHONY (interposing). To the civilian training camps?

Col. MORROW. Yes, sir. If that does not prove a success than the Reserve Officers Training Corps camps should be resumed.

Mr. ANTHONY. In other words, you do not want to go any further with the military education of these younger men than to train them for enlisted men?

Col. MORROW. Well, I think they ought to look toward the officers, but that is as far as their training will take them.

Mr. ANTHONY. At that age?

Col. MORROW. Yes, sir.

Mr. SLEMP. Gen. Lord, I notice that on this sheet the estimate of \$6,475,000 has been reduced to \$4,356,842.60. Does that have any relation to the number of men in the Army?

Gen. LORD. Whatever proportion of this estimate appears in the column of variables, the new estimate for 175,000 men would be just five-eighths of the amount that is carried.

Mr. SLEMP. Does that have any relation to the number of men in the Army?

Col. MORROW. No, sir; there is no relation.

Mr. SLEMP. Do you agree with Gen. Lord on that matter?

Gen. LORD. I do not think he has ever seen this sheet.

Mr. SLEMP. On this sheet your estimate is reduced to \$4,356,842.60.

Col. MORROW. That is a very serious mistake, sir.

Gen. LORD. The amount dependent on the enlisted strength, as reported from the War Plans Division, is \$5,648,366.39, and would consequently be reduced by three-eighths for an army of 175,000. The cut was made in the amount as reported from their office and we accepted their figures on it; they may have gotten the columns tangled.

Col. MORROW. I do hope the committee will bear in mind that this \$6,475,000 is only for 100,000 students and do hope that the War Department will be authorized to extend that number.

CHANGE OF LANGUAGE.

Mr. ANTHONY. Why do you need all of this new language?

Col. MORROW. Heretofore these appropriations were under the head of quartermaster supplies and ordnance, and this is for the purpose of bringing the two together; there is nothing new, but it brings the verbiage of two former paragraphs together into one, and where it is italicized that was the provision in the Army reorganization act.

Mr. ANTHONY. Most of this new language, I take it, is subject to a point of order.

Mr. DENT. I doubt it.

Mr. ANTHONY. If the language has been carried at some other point in the bill that would not necessarily make it in order in this paragraph, would it?

Mr. DENT. I do not think so.

Col. MORROW. All of this has been provided for by law and was appropriated for last year; there is nothing new in the language allowing transportation at 5 cents per mile, and all this amounts to is putting several appropriations under one head.

Mr. DENT. You mean the travel pay was carried somewhere else?

Col. MORROW. That came out of the Army appropriation act as a rider, or something of that sort, and it is in the amended national defense act.

Mr. DENT. What I am getting at is this: Where was this transportation item carried in the bill of last year?

Col. MORROW. It was not in the Army appropriation bill last year; it was put in the national defense act.

Mr. DENT. I am talking about the appropriation of last year.

Gen. LORD. The paragraph which is consolidated with this is found on page 116, and that has been marked for elimination; he has carried the authority contained therein over into this paragraph, so as to combine the activities.

Mr. ANTHONY. In line 15 you ask for the insertion of the words "establishment and" making it read "For the establishment and

maintenance of camps," etc. That would involve the construction of new camps, would it not?

Col. MORROW. No, sir; it would not. The customary preliminary arrangements that would be involved in the creation of a camp should be covered by the language of next year's appropriation bill, and the word "establishment" does that. It was not intended that this item should provide for any new construction.

Mr. ANTHONY. Has the word "establishment" always been carried?

Col. MORROW. No, sir.

Mr. ANTHONY. In providing these camps do you make use of military reservations and facilities that are already owned by the government?

Col. MORROW. There has been no other place used except cantonments and garrisons.

Mr. ANTHONY. So that you go to no additional expense in providing camp sites?

Col. MORROW. No, sir.

Mr. ANTHONY. There is legislative authority for the payment of the travel allowance of 5 cents a mile?

Col. MORROW. Yes, sir.

Mr. DENT. I think you will find that was carried in the transportation item of the appropriation bill of last year.

Mr. ANTHONY. It is in the national defense act.

Mr. DENT. It is authorized by law, but I mean it was carried in the item of transportation in the appropriation bill of last year, and he wants to transfer it to this item this year.

Col. MORROW. This year we had to bring everything together.

Mr. ANTHONY. The last proviso of the old act you eliminate, do you not?

Col. MORROW. Yes, sir.

Mr. ANTHONY. It contains practically the same language?

Col. MORROW. Yes, sir.

Mr. ANTHONY. In regard to travel pay, why could you not go along with that old language?

Col. MORROW. We simply put it up there to work in with the other.

Gen. LORD. They provide specifically here for the payment in advance of travel pay, so as to give them the money to start with.

Mr. ANTHONY. That is, heretofore they would get it at the termination of the travel, and now you want to pay it to them in advance.

Gen. LORD. Yes; and we must have special authority to do that.

Mr. ANTHONY. You covered page 81 in your statement, did you not?

Col. MORROW. Yes, sir.

Mr. ANTHONY. How about the new language on page 81?

Col. MORROW. It is the same proposition; there is nothing new put in there, and it does not make it any broader than it was before.

Mr. ANTHONY. You already have authority, for instance, for overhauling and repair of personal equipments, machine-gun outfits, and horse equipments?

Col. MORROW. Yes, sir.

Mr. ANTHONY. Why do you insert the language "in said military" at the bottom of page 81?

Col. MORROW. I understand that is simply running the items together; there is absolutely nothing new inserted.

Mr. ANTHONY. The amount of \$86,000 covers the quartermaster's and ordnance supplies?

Col. MORROW. Yes, sir.

Mr. ANTHONY. That were formerly provided for in some other part of the bill?

Col. MORROW. In quartermaster and ordnance items.

The following is an explanation of the changes in the phraseology of the items pertaining to the Reserve Officers' Training Corps:

RESERVE OFFICERS' TRAINING CORPS.

Page 78, subcommittee print, Army appropriation bill: Change, commencing on line 6 and ending on line 12, "of such public animals, means of transportation, arms, ammunition, supplies, tentage, equipment, and uniforms as he may deem necessary, and to forage at the expense of the United States public animals so issued, and to pay commutation in lieu of uniforms at a rate to be fixed annually by the Secretary of War;". The phraseology is changed so that it follows exactly the language of section 47, act of June 4, 1920, except for the words "means of transportation" instead of "transportation" as in the act of June 4, and except also that with reference to the addition in line 8, "supplies, tentage," no specific authority of law has been found for this change.

Change, line 15, the addition of "establishment and". No specific authority of law has been found for this change.

Change, commencing on line 21, page 78, and ending on line 5, page 79, "or in lieu of transporting them to and from such camps and subsisting them while en route, to pay them travel allowance at the rate of 5 cents per mile for the distance by the shortest usually traveled route from the places from which they are authorized to proceed to the camp and for the return travel thereto, and to pay the return travel pay in advance of the actual performance of the travel; for medical attendance and supplies for members of such corps while at said camps;". This follows closely the wording of section 47-a, act of June 4, 1920.

Page 79, subcommittee print of bill: Change, commencing on line 5 and ending on line 7, the addition of "for pay for students attending advanced camps at the rate prescribed for soldiers of the seventh grade of the Regular Army;". This is in accordance with the last proviso of section 47-c, act of June 4, 1920.

Change, line 9, "(such) a rate (,)". This change is obviously necessary to accord with intent of act of June 4, 1920.

Change, line 11, the addition of "as amended by the act of Congress approved June 4, 1920." The reason and intent of this change are obvious.

Change, commencing on line 12, page 79, and ending with line 5, page 80. The omission, as indicated, is that of certain provisos contained in the last appropriation act, which being permanent general legislation are unnecessary in subsequent acts.

SUPPLIES AND EQUIPMENT FOR MILITARY SCHOOLS AND COLLEGES.

Page 81, subcommittee print of bill: Change, line 3, "(supply) issue." The change is necessary to accord with the act of June 4, 1920.

Change, line 4, "(56) 55-c of the act of Congress approved (June 1916) June 4, 1920." The reason for the change is obvious.

Change, line 5, the addition of, "under such regulations as may be prescribed by the Secretary of War, to military schools and colleges, other than those provided for in section 40 of the act above referred to." This follows the wording of section 55-c, act of June 4, 1920, except for the word "military" before "schools and colleges," which word is not in act of June 4, 1920.

Change, line 8, the addition of the word "arms." The change is made to accord with section 55-c, act of June 4, 1920. With reference to the next change in line 8, the addition of "ordnance equipment, including the transporting of same, and the overhauling and repair of personal equipments, machine-gun outfits, and horse equipments." This wording has been brought over from the item "Ordnance Supplies for Military Equipment of Schools and Colleges" now combined with the appropriation item on page 81.

Change, line 12, "(to) in said military." This change is incidental to the combination of the two appropriation items on pages 78 and 81, though no authority is found for the word "military" at this place.

Change, line 13, the omission of "other than those provided for in section 47 of the act above referred to." These words are already inserted above.

INCIDENTAL EXPENSES.

(See p. 624.)

RECRUITING EXPENSES.

STATEMENTS OF COL. C. H. MARTIN AND MAJ. JOHN D. CARMODY.

Mr. ANTHONY. What is the size of the recruiting expense that has been allotted before?

Col. MARTIN. There is nothing that has been allotted before: \$482,000 was allotted last year.

Mr. ANTHONY. I mean in previous items we have traveling of recruits and feeding recruits.

Col. MARTIN. This is under incidental expenses.

Mr. CRAMTON. It contains lodging?

Mr. ANTHONY. Other than lodging.

Col. MARTIN. This is under incidental expenses which include publicity, newspaper advertising, billboards, and something like that. Probably these expenses are to be inquired into, and we have some data if you desire to go into it.

ADVERTISING BY BILLBOARDS AND POSTERS.

Mr. ANTHONY. How much money have you expended during the current year for the purpose of advertising, posters, and billboards?

Col. MARTIN. \$376,544.99

Gen. LORD. There is an obligated expenditure under that item for recruiting, advertising expenses, miscellaneous recruiting expenses, not including lodging, \$396,375.03.

Col. MARTIN. We have the figures to December 31.

Gen. LORD. This is to January 4.

Col. MARTIN. These are the figures to December 31.

Mr. ANTHONY. So that the greater part of this expenditure will be for advertising and printing?

Col. MARTIN. This item is divided into three parts.

Mr. ANTHONY. Will you just explain that to us?

Col. MARTIN. And if the committee is looking to save expense: I think we can save some expense, we can save some on these items. I would like to go a little bit into detail.

This appropriation consists of three parts: The first part is the newspaper advertising. Now we are through with that. I do not think it will require any more newspaper advertising because it has met with such marked success that I think the results will be sufficient. On that we spent \$250,000, and I probably ought to explain to the committee how that money was spent and the result that has been brought about by it. It is a new departure in the recruiting service. We have been working under orders for an Army of 280,000 men. There was a very serious crisis that came to the recruiting service last winter. Our chief source of recruits after the war was the demobilization camps, and when demobilization stopped in December, 1919, our recruiting stopped.

Our Army found itself in such shape that we first put on a drive to get 75,000 men in 10 weeks, beginning the 19th of January, 1920. We turned loose everything the Army had on the public to get them

75,000 men. The drive was copied after the Liberty loan drives. It was a big ballahoo. The result of this drive was that at the end of the 10 weeks instead of having gotten 75,000 men, which was the minimum, we had only 21,000 men. But the worst part of the drive was that it demoralized our old recruiters so that in April—we have the total showing it month by month—in April we got only 7,000 recruits during that month for an Army of 225,000 men, as it was then, not enough to make up for the wastage. There were more discharges in the month of April than enlistments.

Mr. ANTHONY. What is the average wastage per month?

Col. MARTIN. On an Army of 280,000 about 15,000 a month. Of course, the Army wastage at that time was about 10,000.

DESERTIONS.

Mr. ANTHONY. What is your percentage of deserters?

Col. MARTIN. Now it runs about $4\frac{1}{2}$ per cent. It varies.

Mr. ANTHONY. Is it high now or low?

Col. MARTIN. It is low. It has run up as high as 7.43, and it has gone down as low as 1.37. It varied according to the business conditions in the country in the old Army. In this new Army we think it will be different.

When we got into this condition in April it was realized that we had to get a new recruiting service; we had to reorganize this service and get it on an efficient basis.

The first part of that program was to select and train a highly specialized body of recruiters, both officers and men alike, to get a class of men who would go into the Army and who would have confidence in the Army and would have pride of accomplishment, and these different recruiting parties all over the country would have to be held individually responsible for the recruits that we got; these different teams would have to be worked just as a football team was, and every man would have to be a producer. In a word, the question of getting recruits was a question of salesmanship, selling the Army to the people. In order to do that we would have to have this class of men, and the next idea was that we would have to bring the Army to the people, have a democratic Army that the people would know about. The word went forth that the recruiter should knock at the home of every man in this land. This was to be an Army that would appeal to rich and poor alike.

Before the war we got our great mass of recruits in the great labor centers, in New York, Chicago, and San Francisco. But now we get them from the country. As a matter of fact New York, Chicago, and San Francisco are not carrying their share of the load. We get the great mass of our recruits in the rural communities. The biggest producers that we have are in the American sections of the country. Our biggest districts are in the South and the Central West. New York, New England, and Chicago—the district around Chicago—have been persistent laggards in this campaign.

NEWSPAPER AND PERIODICAL ADVERTISING.

Now then in order to bring this Army to the people, in order to give the people confidence in this Army, which we all know they never had before, if we wanted their sons to come into this Army, we

wanted to let the people know what it was, let them know that it was their Army. In order to advertise the Army we had to go into the best advertising mediums, that is in the magazines and the newspapers. So we put on a campaign that cost us \$250,000.

Mr. ANTHONY. Who expended that money?

Col. MARTIN. It was expended under the direction of the War Department here through "The Advertising Agencies Corporation" located in New York. The contract was let to place the advertising in 211 magazines and newspapers.

Mr. ANTHONY. Was it placed by this agency on a commission basis?

Col. MARTIN. Yes.

Mr. ANTHONY. What was the commission paid for that?

Col. MARTIN. I do not know what their private commission was. We have the contract here.

Maj. CARMODY. The contract was let by the quartermaster on duty in New York in regular form, specifying as to just what newspapers were available, and the question of circulation.

Mr. SISSON. You got a certain amount of space.

Col. MARTIN. We bought the space just like we bought other supplies.

Mr. SISSON. These men guaranteed a certain amount of space for a certain amount of money?

Col. MARTIN. Yes. We advertised in 173 newspapers in the country, the papers of largest circulation. These papers were distributed regardless of their politics. For instance, in New York we took the six papers that had the largest circulation. In Philadelphia we took five, in Washington one. We had at least two papers in every recruiting district. We had 56 districts in the country and we got two papers—the smallest number was two papers in each of those districts—papers of the largest circulation regardless of their politics. In addition to those newspapers——

Mr. SISSON. How did you check that up to see if you got what you paid for?

Col. MARTIN. They had to send their slips in.

Mr. ANTHONY. It was placed through a regular advertising agency that checked up this business?

Col. MARTIN. Yes.

Mr. SISSON. It checked the business, but how did you check it?

Maj. CARMODY. We checked it through our publicity bureau in New York.

Mr. SISSON. With the clippings from the papers?

Maj. CARMODY. Yes.

Col. MARTIN. Mr. Anthony would know the details of that. It is a business proposition.

Mr. CRAMTON. Have you been able to check the results?

Col. MARTIN. Yes.

In addition to these 173 papers, in which there were 12 insertions of these advertisements, we advertised in 19 prominent magazines. I want to give you those.

Mr. SISSON. Were those papers and magazines patriotic enough to give you a little more space than the advertiser would get in commercial business?

Maj. CARMODY. Yes, sir.

Col. MARTIN. And we asked them if they would give us better space on days other than the ones specified and they did so. It was more or less of a patriotic movement and they responded.

Mr. Sisson. And the advertisers, those who were doing this, entered into the spirit of it?

Col. MARTIN. Very thoroughly, as these clippings would show.

Mr. ANTHONY. Colonel, I notice that the paper you gave me is a proposal for the advertising service. Where is the contract that was made?

Maj. CARMODY. That was according to the quartermaster form of proposal, and it was accepted on that proposal.

Col. MARTIN. I can put that into the record.

Mr. ANTHONY. I do not want to clutter up the record with a great lengthy contract, but I would like the substance of the contract that you made with this advertising agency, and the commission they received for performing that service.

Col. MARTIN. Then in addition to these 173 newspapers, such as I have mentioned, we advertised in the following magazines: Saturday Evening Post, Literary Digest, Collier's, American Magazine, Popular Mechanics, Popular Science Monthly, Christian Herald, American Legion Weekly, and the Hearst American Weekly Magazine.

We also advertised in 19 foreign-language papers, of course excluding the nation with which we are still at war. These foreign papers that we advertised in were distributed in the sections from which our educational centers draw recruits. We have six of these sections in the country where they take the illiterates and non-speaking English recruits and put them in these six schools. One is at Camp Dix, another at Camp Jackson, another at Travis, another at Grant, another at Camp Pike, and one at Camp Lewis, Washington. These were the six educational centers, and our advertising was in the foreign papers of those sections.

Mr. ANTHONY. Colonel, were not the bulk of the advertisements that were inserted devoted to educational training activities of the Army?

Col. MARTIN. Yes.

Mr. ANTHONY. Now, it has been charged that this newspaper advertising and this magazine advertising was principally devoted to propaganda of the educational training work of the Army.

Col. MARTIN. Yes; that part was featured as an attractive part of the Army, but not overdrawn, we think.

Mr. Sisson. For instance, I noticed advertisements of this kind in line with the chairman's suggestion: I may not have exactly the heading but it is something like this, "Get an education free. Join the Army and be educated."

Col. MARTIN. Well, now, that is the truth.

Mr. CRAMTON. How many advertisements in a series?

Col. MARTIN. Twelve.

Mr. CRAMTON. Would it be very bulky matter to insert those 12 advertisements?

Col. MARTIN. No.

Mr. ANTHONY. There was a total of 5,000 lines.

Mr. CRAMTON. But that was in large type. I suppose if it was reduced in the record it would not take a great deal of room.

Mr. ANTHONY. Five thousand agate lines of space.

Mr. CRAMTON. No; because in the advertisement they had display lines and in reproducing the matter in our record it could be printed in ordinary type. Was there a good deal of display in these advertisements?

Col. MARTIN. They were cuts, but we think they were very artistic cuts.

Mr. CRAMTON. We do not want a reproduction. I simply want to get the meat out of those advertisements simply to take a page or two of the record.

Col. MARTIN. We would be glad to insert those because we are very proud of them.

The following paragraphs are reprinted from several of the illustrated enlistment circulars issued by the Army to stimulate recruiting:

EARN, LEARN, AND TRAVEL

The Army is a school where a boy can learn to be a man among men. Mind and body are trained by expert teachers.

He earns a good living, and can learn to be a skilled man in a trade, if he chooses.

And all the while he is broadening out—living in new places, making new friends and finding new opportunities.

That's why, when a soldier goes back to civil life from the new democratic peacetime Army, he has an advantage over the stay-at-homes.

GIVE YOURSELF A CHANCE.

Do you want to stay within reach of your own front gate all your life? Or would you like to see some other part of the country—know the difference between Lake Erie and the Gulf of Mexico?

In the Army you see new faces and places, make new friends, earn a good living, and can learn to be a skilled man in a trade, if you like.

That's why, when a soldier goes back to civil life, he has the advantage over the stay-at-homes. He's ready for a better job—with more money—

Because he knows more, because he's seen some places besides his own home—

Give yourself a chance.

Earn, learn, and travel.

Are you a skilled man? Are you satisfied with your job and your prospects?

Have you ever wanted to be a surveyor—or radio operator—or to hold down a technical job?

There's where the big pay is—and getting it is only a matter of knowing enough.

If you want to know more, the Army is a great place to learn.

A soldier has a chance to learn to be expert in one of many technical jobs. He earns a good living while he's studying. He has money in his pocket at the end of each month. It doesn't cost him a cent to fit himself for a "big-pay" job when he goes back to civil life. And he sees new places and faces while he's earning and learning.

It's a good job—an unusually good job as jobs go, nowadays—and it is a way to a better job afterwards.

Ask a recruiting officer

Earn, learn, and travel.

THE U. S. ARMY TEACHES TRADES.

Learn a good trade, and earn a good living in new surroundings while you're learning.

That's the chance a man has who studies in the Army trade schools.

When a man finishes an Army trade school course, he's fitted for a good job at good pay the very day he goes back to civil life.

And he has been earning a good living, made a lot of new friends, and seen something of the country while he has been learning his trade.

Get paid for learning how to earn more money later.

Ask a recruiting officer about it. He'll tell you some of the many other advantages.

The Army offers you a good job—with a future to it, too.

Earn, learn, and travel.

THE U. S. ARMY BUILDS MEN.

A soldier earns a good living—

Sees new places and faces—

Has a chance to go to school or to learn a trade if he chooses—

But a soldier doesn't drill or study or work all the time.

Soldiers play baseball and football, swim, box, wrestle, and are crack athletes in the various field sports.

Earn, learn, and travel.

PROMOTION GOES TO THE MAN WHO KNOWS.

Try for N. C. O.

The ex-service man—the man who already knows—naturally is in line for the N. C. O. opportunity—with its better pay—because he knows the game.

In the new democratic peace-time Army a man has a chance to learn almost any trade he chooses.

When he goes back to civil life again promotion keeps coming—because he knows more.

Think it over—and fall in for promotion.

The U. S. Army teaches trades.

The question you bring up, Mr. Sisson, is a very important one, and one that should be met, and that is whether we have been engaged in a deceptive propaganda with reference to this Army. We feel, Mr. Sisson, that we have kept well within the bounds of truth, and we have advertised nothing that is not facts. In other words, to keep our canvassers—of course we may have had some blowhards. They are found everywhere——

Mr. Sisson. We had those on the Liberty loan campaigns, who would say a bond was worth a hundred cents on the dollar, and people want to hold the Government responsible for the 15 cents failure because some people got up and said that the Government would pay dollar for dollar for the bonds.

Col. MARTIN. But what we preached to the men, carefully instructing both officers and men, was that they should tell the truth, that they should be men of character and of knowledge and pride, that they were the representatives of the Army, and that the man without character, without knowledge or pride, got nowhere in life.

Now, in order to make our information more accurate, we have sent canvassers into the camps so that they would carry first-hand information to these applicants, and we have encouraged the recruits, if they did not get what they were promised, to let us know. That has been carefully checked up. For instance, just last week we got a complaint from a Mexican sheriff in New Mexico about the way a promise was not being kept at Camp Travis that had been made to his boys about learning a trade, that Gen. Harbord had not kept his promise.

We sent that to Gen. Harbord and he replied that the first thing he did was to give the boys the basic military training, for which of course they came into the Army. The military training was the first consideration and that the boys were not yet through with that.

That had not been explained to the father, that they had to go through the recruit drilling first——

Mr. CRAMTON. They had the impression that they were going to college and not to the Army at all?

Col. MARTIN. That the Government was going to pay them for going to school. When the father got an explanation, he saw the point of it at once, and of course withdrew his objection.

Gen. Harbord went into details explaining that, and when he wrote to me about it he said, "We make it a point to keep the promises of the recruiting service." And that is the case with all of our live, progressive officers in the Army to keep up this movement, realizing that this country will not stand for a large army of professional soldiers such as we had in the past. We feel that we have brought the Army to the homes of the American people. We know we have, and for that matter I can tell you that the expense of this recruiting service has gone down in a marked degree. For instance, in 1913 it cost us \$127 per recruit. We have the figures which we will be glad to insert.

Mr. ANTHONY. Colonel, the greater part of this item of \$483,000 constitutes advertising expenditures, I take it?

Col. MARTIN. Yes, sir.

Mr. ANTHONY. Do you consider it necessary during the next fiscal year, in view of the reduced size of the Army, to carry on such a campaign?

Col. MARTIN. No, we have stopped that.

Mr. ANTHONY. Why do you need to expend a lot of money for advertising during the next fiscal year?

Col. MARTIN. That estimate, Mr. Chairman, was made when recruits were hard to get last August.

Mr. ANTHONY. It was made also at a time when you thought you were going to continue recruiting the Army up to 280,000 men?

Col. MARTIN. Yes.

Mr. ANTHONY. In view of the fact that the Army will probably be maintained on a basis of 150,000, you could get along without all this expenditure?

Col. MARTIN. Yes, sir, we can get along with half of it. We do not want to spend money.

Mr. CRAMTON. What are you going to do with half of it?

Col. MARTIN. Certain expenditures are necessary in order to keep a live business going. There are certain incidental expenses around these recruiting offices that have to be met—rubber stamps, posters, mimeograph supplies. There will always be certain expenses of that kind.

Mr. CRAMTON. \$483,000, and you eliminate the item of \$250,000 for newspaper advertising. How much will your billboard advertising be?

Col. MARTIN. We asked for \$200,000 for billboard advertising. That has always been on the basis of \$1 a man. That is an established expenditure, a dollar per recruit.

Mr. CRAMTON. But with this change in the estimate and the change in conditions prevailing now you do not feel that you need any \$200,000 for billboard advertising?

Col. MARTIN. No, not at all. That can be kept down to a nominal sum.

Mr. CRAMTON. It seems to me under these conditions the item could be reduced far below \$240,000, we will say.

Col. MARTIN. We could get along on that.

Mr. CRAMTON. I am asking you if you could not get along on a whole lot less.

Col. MARTIN. We are not spending that money simply because it was appropriated. There may be certain instances arise that we can not foresee now. Of course that is in the wisdom of the committee, but we certainly can get along on half.

Mr. ANTHONY. Are not the probabilities pretty strong that the Army will recruit itself in the next year or so?

Col. MARTIN. I think the time, Mr. Chairman, is rapidly approaching where we will have a waiting list for 280,000 men. This Army is getting stronger with the people of the country every day.

RELATION OF ENLISTMENTS TO INDUSTRIAL CONDITIONS.

Mr. CRAMTON. Is it not also true that your recruiting reflects very accurately industrial conditions?

Col. MARTIN. Not at all, sir. Of course industrial conditions will have their effect. But here is the table——

Mr. CRAMTON. You made the statement a moment ago that it was difficult in August and September owing to the industrial conditions to get troops. To-day I assume it is not, because in August and September industrial conditions were much better than they are now. You made the suggestion also that in the South and in certain sections they are coming along fine with recruits, but that in the vicinity of Chicago, where industrial conditions continued good up to a later point, you had difficulty in getting recruits. In other words you find it much easier to get recruits when industrial conditions are poor.

Col. MARTIN. I do not think I was thoroughly understood. I want to go a little bit further than that. Industrial conditions will have their effect on recruiting. But I mean to say that this new work of having the educational and industrial training in addition to military training, in other words taking up all the slack time that the soldiers used to have, because they were drilled up until noon and then were allowed to loaf the rest of the day, which time we now use in teaching them something, is going to have a marked effect.

Mr. CRAMTON. You sent a recruiting party through northern Michigan and the upper peninsula. I do not know how many men were in the party.

Col. MARTIN. That was last spring.

Mr. CRAMTON. I was told of it this fall, but I did not pay much attention to it. But I have the impression it was in the early fall and I think they got one man on that trip. You took the campaign right to them, but they did not join in with you because the industrial conditions did not make the enlistment attractive.

Col. MARTIN. Well, now, we have the figures here, of course, and they are hard to get away from. You might be interested if I just run down to see how it is affected by industrial conditions.

Mr. CRAMTON. Just before we leave that other matter, that was in the spring that this incident occurred. Then your estimate would be that at that time you were not making the promises as to education that you were later.

Col. MARTIN. That it had not gone home to the people, for the people did not believe us.

Mr. CRAMTON. The proposition was being made?

Col. MARTIN. They were not educated up to it and they thought—the army of men that came from the overseas discouraged this program, saying that the Army would not put this program through. We had not the confidence of the people. The people did not believe in the Regular Army.

Mr. Sisson. A good deal of that work has been done all over the country and in my State. After the war there was a great discouragement to the boys that had not been in the Army, a great discouragement to them to enter the service, as they were told of the hardships of the war, some of course exaggerated. But the industrial conditions did not trouble in the South, so that the boys could get attractive employment. It depends largely upon the character of the first boys that you get from a community.

Col. MARTIN. Surely.

Mr. Sisson. You get a good man in the community——

Col. MARTIN. And if you keep your promises——

Mr. Sisson. And he writes to a friend to join, or back to a father telling what is happening to him, and if the boy happens to be pleased in that neighborhood——

Col. MARTIN. Absolutely.

Mr. Sisson (continuing). You will get a good many recruits, obtained because they send back good reports. It is due to fortuitous circumstances whether you are getting a good start in that neighborhood.

Col. MARTIN. And whether the Army keeps the promises to the boys. If you lie to that boy and get him in under false pretenses, he will knock the Army, and the recruiting is done for in that section.

Mr. Sisson. There is this addition, that if the man goes in to have a good time, and he finds it is a serious undertaking, he writes back unsatisfactory letters, and that has a tendency to discourage people in the community; but if he goes into it seriously, and finds opportunity, he writes back home and says he is getting everything he is entitled to, writes back to his father and mother to that effect, it will help to get recruits in the neighborhood.

Col. MARTIN. Yes.

Mr. Sisson. That will depend a great deal on the kind of boy you get first.

Col. MARTIN. The great opposition that we had to overcome was the opposition of parents to sons going into the Army. The average mother would as soon see her son go to jail as to the Army. Now, we had a case in Texas where a father brought his boy 300 miles to the recruiting office.

Mr. Sisson. Sometimes they bring them there for correction.

Col. MARTIN. Is not that a good thing if the father and mother feel that they can not bring them under control?

Mr. Sisson. It is a splendid thing for some boys.

Mr. CRAMTON. Suppose a boy enlists without any sort of promise. What would you do for him?

Col. MARTIN. He has the same opportunity as anybody else.

Mr. CRAMTON. I had the case of a boy enlisted when 15. He is now 17. If he has had any education since he has been in the Army it has not been very extensive.

Col. MARTIN. He did not want much. It is voluntary. We can not force it on them.

Mr. CRAMTON. Suppose he wants it. I do not think he knows.

Col. MARTIN. He can have it, most assuredly.

Mr. ANTHONY. Can you enlist a boy of 15?

Col. MARTIN. Not at all. That boy lied and his parents or guardian signed a false certificate.

Mr. CRAMTON. No; the parents did not have anything to do with it.

Col. MARTIN. The guardian then?

Mr. CRAMTON. He misrepresented his age. I have seen the boy. There might be a mistake about his age. I am not holding you responsible in his case. He looks to be the right age. Now there is nothing to prevent his education in the Army?

Col. MARTIN. Nothing whatever. We would be glad to check him up. Every case has been taken care of.

Mr. CRAMTON. Has there been as much effort made inside of the Army to call this matter to the attention of the soldiers as there has been outside the Army to recruit?

Col. MARTIN. I think so. Among some of the older officers it may be a little bit hard for them to take up new ideas.

Mr. CRAMTON. How much were you able to check up in your advertising as to the results?

Col. MARTIN. I was just going to leave this list here.

Mr. Sisson. One sees the objection that it is taking the boys off the farm—that to get him into the Army causes him to permanently leave the farm. If there could be in his training a method that would give a man a certain amount of education, develop him physically, and induce the young man to stay on the farm, it might be a great thing. But the trouble with this Nation is that the people are leaving the farm. I know a few young men who have gone back to the farms where their fathers have had good farms, or they held an interest themselves, but it is a rare case where a man who goes into the Army goes back to the farm and goes back to work with his own hands on the farm.

Col. MARTIN. We had a serious contention with the Secretary of Agriculture last spring about our taking boys from the farm. As a matter of fact the ones that we took were not a drop in the bucket to those taken by the automobile industry.

Mr. Sisson. According to a statement made to me at the Bureau of Statistics, over a million young men left the farm at the time the automobile activities were so great.

Mr. PHILLIPSON. With our splendid industrial schools we are sending back boys to the farm, more boys to the farming communities than the number who left.

Mr. Sisson. I would like to see something of that kind. It is said an army moves on its belly, but the Nation lives off the farm.

Col. MARTIN. You ought to visit these camps and see what they are doing along agricultural lines.

Mr. Sisson. I think a great many young men enlist from the South, and they are usually men of fine character, though they may be poor—

Col. MARTIN. They are fine stock.

Mr. Sisson. They come from these people who come to this country in the early days, and they are altogether American. But a great

many young men enlist in the Army with the idea that it will enable them to get training that will enable them to leave the farm. The greatest national problem now is to be able to rehabilitate these farms. There is not a great political economist in the world that does not attribute national greatness to the fertility of the farm.

Col. MARTIN. You are absolutely right about that, but we claim we are sending them back better farmers, educated farmers, from the Army. Now, Maj. Carmody will tell us of a survey that we had.

Maj. CARMODY. Last fall, having in mind the farm industry, and having in mind the talk that it was apparent that the men were leaving the farm for the Army, we took up the question by correspondence and sent circulars with return postal cards to Arizona, Arkansas, Colorado, Idaho, Kansas, Missouri, Nebraska, New Mexico, Oklahoma, South Dakota, and Utah, taking those as the farm centers. On the post cards we had a list of the various subjects that would be taught in the Army schools, and we asked if the recipient was interested, and if so, to please check the subject in which he was interested, and he would be sent the necessary data. We took 2,677 of those cards at random and worked an average and found that 18.5 per cent wanted information on agriculture and horticulture. The next largest percentage, which was 17.3, was on motor and tractor driving and repairing. The rest took up cabinetmaking, blacksmithing, horse shoeing, business and commerce, bookkeeping, cooking, mechanical drafting, and the various other trades that we teach in the Army. This brings out the point that Gen. Martin is making, that the Army is trying to make the Army school a benefit to the country as a whole.

Mr. ANTHONY. General, as I understand it, the bulk of this \$483,000 that is asked for is to be used in publicity to aid recruiting.

Col. MARTIN. Yes, sir.

Col. HANNAY. Before you leave that item I should like to invite your attention to the fact that if this item is materially reduced below the actual requirements of recruiting it will affect the responsibility of the Quartermaster General—as, for instance, there has been apportioned for this item at present \$789,600, which of course takes funds from the general appropriations of the Quartermaster Corps.

Mr. ANTHONY. \$789,000 during the current year?

Col. HANNAY. Yes, sir.

PER CAPITA COST OF RECRUITING.

Mr. CRAMTON. What is your estimate as to what it cost you this year per recruit?

Col. MARTIN. The basis that we worked on for the sum that we asked for previously was an army of 280,000 men, so that during the next fiscal year we would require sums in this amount: For newspaper advertising \$2.50 per recruit. That would be half a million dollars. For bill posters on the same basis as it was before the war \$1 per man. That would be \$200,000. And for the incidental expenses of the recruiting offices and the office here in Washington \$200,000, which is more or less of a constant factor.

PROPOSED PROGRAM.

Mr. CRAMTON. That is the figure on the number of recruits that you want to recruit?

Col. MARTIN. On an Army of 280,000 men 200,000 recruits would be required, and you know that one year enlistments for an Army of 280,000 men is a pretty big job. On a normal basis it means 15,000 a month.

Mr. ANTHONY. General, how much have you actually expended this year under this head?

Col. MARTIN. We will give you the exact sum.

Maj. CARMODY. We have actually spent to the 31st of December \$376,544.99.

Mr. ANTHONY. But the total amount of \$780,000 has been allotted for this purpose. Do you propose to spend it all?

Col. MARTIN. No, sir; we do not. Included in that amount is this \$250,000 that we spent for newspaper advertising. That will not be necessary any more.

Mr. CRAMTON. How much are you going to spend the next six months?

Col. MARTIN. Not very much.

Mr. ANTHONY. Col. Hannay, I would like to ask you if, after you are directed to allot \$780,000 of your quartermaster appropriations for this activity here of recruiting, you are precluded from using this money for the purpose for which it was appropriated by the House?

Col. HANNAY. Yes; unless it is reapportioned to us.

Mr. ANTHONY. And it will cause a deficiency in some of these other items?

Mr. Sisson. And if you had that in addition to what has been used that would be the cost?

Col. MARTIN. I will make it more accurate, \$50,000 additional would do.

Col. MARTIN. Possibly. I want to call attention to the fact before we get away from this, as to what these expenditures have meant. In 1913 a recruit for the Army, not counting the pay of the officers or enlisted men, cost us \$127.64 apiece. In November, which is the last month for which we have figures—it will be less in December—the same recruit cost us \$38.30 a head.

Mr. CRAMTON. The statement there on a year's campaign average for one month is not at all fair. You put \$250,000 in advertising, and you did not get the returns within the next week.

Col. MARTIN. No; the returns, I think commercial houses have figured, last for 13 months.

Mr. CRAMTON. So that you can not figure an average for one month?

Col. MARTIN. I will read on down for the fiscal year: July, \$46.82; August, \$45.23; September, \$52.41; October, \$48.60; November, \$38.30.

Mr. ANTHONY. Those averages are based on the actual expenditures for the months?

Col. MARTIN. Everything.

Mr. ANTHONY. For that month?

Col. MARTIN. That month.

Mr. CRAMTON. Does it include the cost of a party of a dozen men through my district with a carload of paraphernalia; the traveling expenses of that party, freight, etc.? Is that figured?

Col. MARTIN. Yes, sir.

Mr. CRAMTON. But it is not in this appropriation we have before us.

Col. MARTIN. No; only the incidental expenses are counted in there. But in those figures that I gave, all the activities that you spoke of are in there. Last spring that same recruit cost on an average \$197.94.

Mr. CRAMTON. I think likely, because your party got only one man in the thumb of Michigan.

Col. MARTIN. Yes; but we have stopped that kind of business. We have tried to get it on a scientific commercial basis.

Mr. CRAMTON Just one more question. If you can get along on \$50,000 for the next six months, why can you not get along with \$100,000 for the year?

Col. MARTIN. Because we have these incidental expenses. Not all of the big expenses have been made during the last six months.

Mr. CRAMTON. Those ig expenses you do not know until in the next fiscal year?

From a study of the cost of recruiting, both on the prewar status and on the present status, the following facts are brought out. In a report submitted by The Adjutant General to the Secretary of War on August 28, 1915, the per capita cost of recruits was stated as, 1913, \$127.64; 1914, \$92.32; 1915, \$87.43. Of these three years, the fiscal year of 1915 should be disregarded. This was the year in which the Army was filled to strength and sometime about the middle of this fiscal year recruiting was practically at a standstill.

In the figures submitted for 1913 and 1914 the items of "Difference between active and retired pay of retired officers on duty at recruiting stations," and "Pay of enlisted men at general recruiting stations," was not included. If these two items had been included as they are in our present figures, the revised figures would be, 1913, \$136.73 1914, \$98.56

Cost of recruiting for the last six months of the fiscal year 1920.

Month.	Expenses.	Enlist-ments.	Cost per man.
January, 1920.....	\$903,796.20	7,170	\$125.94
February, 1920.....	1,461,990.01	7,322	197.94
March, 1920.....	1,592,472.40	9,061	164.69
April, 1920.....	861,186.15	5,472	157.19
May, 1920.....	823,333.94	6,715	122.61
June, 1920.....	840,452.51	8,487	100.20
Total.....	6,492,281.21	44,847	144.54

This cost, as it now stands, includes everything, even the pay of active officers re general recruiting duty. Were these items removed, the cost by month would be reduced by \$12. While the figures are not comparable with figures obtained in normal prewar time, at the same time it will be noted that the cost per man during the intense drive compares favorably with the prewar figures.

Cost for certain months, fiscal year 1921, at general recruiting stations.

Month.	Expenses.	Enlist-ments.	Cost per man	Cost with officers' pay
July, 1920.....	\$925,797.60	11,965	\$77.44	\$92.00
August, 1920.....	965,345.10	14,734	65.52	80.00
September, 1920.....	944,345.10	12,134	77.77	80.00
October, 1920.....	999,345.97	13,414	74.49	80.00
November, 1920.....	1,025,773.67	18,521	55.38	80.00
Total.....	4,860,597.44	70,798	70.00	80.00

In the "total cost" column everything is included even the cost of the pay of active officers on recruiting duty. This also included the item of "difference between active and retired pay of retired officers on duty at recruiting stations," and "pay of enlisted men at general recruiting stations," which were never contained in any prewar estimate. In the last column the item of pay of active officers is deducted. This shows a further reduction of \$12.50 in the per capita cost.

Per capita cost based on total enlistment.

Month.	Enlistments.	Cost per man.	Cost without officers' pay.
July.....	15,114	61.25	46.82
August.....	16,922	57.05	45.23
September.....	14,157	66.70	52.41
October.....	14,961	66.80	48.60
November.....	20,346	50.41	38.30

This cost is based on the total enlistments both at general recruiting districts and those obtained at camps, posts, and stations. No figures are available for any expenses incurred in obtaining enlistments at camps, posts, or stations. Therefore the cost per capita is figured with the total expenses at the general recruiting stations as one factor and the total enlistments as another.

Expenditures for newspaper advertising.

Fiscal year 1920.....	\$184,353.20
December.....	\$125,000.00
March.....	85,000.00
May (for special drive, Camp Grant).....	5,000.00
	<hr/> 215,000.00
Fiscal year 1921.....	250,000.00

These expenditures were all made with the view to building an Army of 280,000 men. This problem differs from any prewar problem, inasmuch as it was necessary to build this Army from the ground up. To this total of 280,000 should be added the expirations of 41,041 one-year enlistments, making a grand total of 321,041.

The prewar figures on advertising were:

	1913	1914	1915
Advertising.....	\$30,759	\$17,000	\$6,900
Bill posting.....	39,250	40,000	40,000
Enlistments.....	25,086	41,210	28,813

MONDAY, JANUARY 10, 1921.

INLAND AND PORT STORAGE AND SHIPPING FACILITIES.

Gen. LORD. Mr. Chairman, in connection with this item of the appropriation, I have discussed this matter with the Quartermaster General, and we recommend that the amount of \$100 be submitted for \$10,000,000 that appears in the bill. There was appropriated \$100 for the current fiscal year to maintain the phraseology in the bill. There have been set out certain amounts to meet claims under this no-year appropriation which are being settled as rapidly as possible, and as these claims are settled and reservations canceled, certain amounts are released and become available for disbursement.

We have been making a study in connection with the War Department Claims Board of the amount of money that will in all probability be required in the various appropriations to complete the settlement of claims, determining the amount that will be withdrawn from the remaining balances. When this estimate was originally submitted in September there was nothing to warrant action of this character. We have, to-day, as the result of the cancellation of certain reservations, approximately \$10,000,000 available. This morning the amount was \$10,076,433.28. We are satisfied as the various claims are adjudicated there will be enough remaining during this fiscal year, and I think enough for the subsequent year without making any appropriation over the \$100 suggested for the purpose of maintaining the phraseology in the bill.

Mr. ANTHONY. How does this affect the item of inland and port storage?

Gen. LORD. It will not affect it because there will be sufficient money under this appropriation still available.

Mr. ANTHONY. That is from the appropriation of two years ago?

Gen. LORD. From the appropriations of two and three years ago, of 1919 and 1918.

Mr. ANTHONY. How much money remains to the credit of that fund?

Gen. LORD. There is available to-day \$10,076,433.23, and as the claims are settled and reservations canceled there will be an additional amount over and above the sum sufficient to cover all claims.

Mr. ANTHONY. How much was used for this purpose during the current year?

Gen. LORD. There has been apportioned to date \$17,489,684.61. Until the procedure with reference to the storage and issue of the technical supplies of the various bureaus went into effect all the storage was controlled by the office of the Quartermaster General. Since that change has been made apportionments have been made to the Ordnance Department, the Signal Corps, and the Engineer Corps to meet that situation.

Mr. ANTHONY. How much has been expended under the item of inland and port storage?

Gen. LORD. There has been allotted to date \$9,468,972.82. That is up to Saturday last.

Mr. ANTHONY. That has been expended?

Gen. LORD. That has been allotted to the bureaus, which we consider equivalent to expenditure.

Mr. ANTHONY. You mentioned an amount of \$17,000,000 a moment ago.

Gen. LORD. That amount was apportioned to the bureaus.

Mr. ANTHONY. So you will probably go through the year with that allotment?

Gen. LORD. That is more than sufficient for the balance of the year.

Mr. ANTHONY. You spoke of the process of the settlement of certain war claims and providing funds. You mean there would be funds remaining in the appropriation, or that funds will accrue?

Gen. LORD. Funds will accrue. For illustration, I was called from this hearing on Friday to meet representatives of a certain claimant who wanted to see me in connection with the port terminal

at Charleston, S. C. That claimant had a claim for a million and a quarter dollars, and the decision as to whether or not that claim can be paid depends on the comptroller. I am satisfied that the case is an exact parallel, as near as such cases are parallel, to the Aberdeen Proving Grounds case in which the comptroller decided that it could not be paid. If my belief is correct, the decision will release a million and a quarter dollars that we have held in reserve to meet the claim. That will illustrate how the moneys will accrue to the balance we now have.

STORAGE DEPOTS.

Mr. ANTHONY. Let us find out something about the magnitude and character of these storage activities. How many warehouses have you under this head?

Col. HANNAY. We have reserve depots at Schenectady, N. Y.; Columbus, Ohio; and New Cumberland, Pa. Those are the three large reserve depots.

Mr. ANTHONY. For reserve materials for the use of the Army, material which you keep in storage?

Col. HANNAY. Yes, sir. Then we have depots at Boston, Brooklyn, Charleston, New Orleans, the Canal Zone, Porto Rico, Norfolk, Va., and Philadelphia; and we have general supply depots at Atlanta, Baltimore, Boston, Chicago, El Paso, Jeffersonville, and New York; and at New York we have branches at Governor's Island, Port Newark, Port Kearny, and at Pittsburgh, which are subdepots to the New York depot. We also have depots at Philadelphia, San Antonio, San Francisco, which includes Alaska, Honolulu and the Philippine Islands, and at Seattle, Fort Sam Houston, St. Louis and Washington. We have port terminals at Charleston, Boston, South Brooklyn, Port Newark, New Orleans, Norfolk, and Philadelphia and San Francisco.

Mr. ANTHONY. Will you put in the record an itemized statement showing how you propose to expend the amount that was estimated for this purpose?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Is that dependent upon the size of the army?

Col. HANNAY. No, sir; this is practically a constant. These supplies are on hand in these depots, and the reduction of the size of the Army will not affect this activity during the coming year.

Mr. ANTHONY. Have you segregated the material which has been declared surplus, or is it carried along in these other depots where you are carrying the Army reserve?

Col. HANNAY. That is carried in all the depots.

Mr. ANTHONY. I did not know but what you had certain depots where you were storing all the live material on hand.

Col. HANNAY. In the reserve depots the war reserve is being concentrated.

Mr. ANTHONY. How are the extensive port terminals we constructed during the war now being operated?

Col. HANNAY. Such a part as is necessary for the continuance of Quartermaster Corps activities is being so employed for the Army, and such part as is available for rental for civilian purposes is being rented.

BROOKLYN ARMY SUPPLY BASE.

Mr. ANTHONY. What has been done with the big terminal at New York?

Maj. GIMPERLING. Mr. Chairman, piers and storage space—the New York terminal proper—is being rented as fast as the same becomes available to commercial interests.

Mr. ANTHONY. Rented to a number of individuals or to a corporation?

Maj. GIMPERLING. One or two; so far as it becomes available the transportation service is renting that space at the regular commercial rate for the local port.

Mr. ANTHONY. How near completion is that project?

Maj. GIMPERLING. The project is completed.

Mr. ANTHONY. It is all completed?

Maj. GIMPERLING. Yes, sir. The storage depot proper is practically filled up with Army supplies, and approximately 30 per cent of it is surplus property, which we are endeavoring to sell and are selling now rather slowly, due to market conditions.

Mr. ANTHONY. The terminal we are speaking of is the one located on the Brooklyn side?

Maj. GIMPERLING. Yes, sir.

Mr. ANTHONY. What was the total cost of that project?

Maj. GIMPERLING. Total cost of Brooklyn Army supply base \$30,520,042.71, of which \$3,734,892.03 was cost of land, and \$26,785,150.68 cost of construction.

Mr. ANTHONY. And also put in the record the amount of the revenue which the Government is receiving in the way of rents or rentals, and any other general information in regard to it that will give us an idea as to whether it is going to be a going business concern.

Maj. GIMPERLING. Yes, sir.

Cost of port terminal Army supply base, Brooklyn, cost of land, \$3,734,892.03; approximate cost of construction \$26,785,150.68; total approximate cost \$30,520,042.71, and occupies 91.05 acres of ground. The amount of revenue which the Government is receiving is \$19,335.75 per month, payable in advance for Pier 4; lessee, Kerr Steamship Co.; date, June 30, 1920; term, 5 years from date, revocable at will by Secretary of War, or a total annual rental of \$232,029 for this pier.

Pier No. 3: Bids have been received for the lease of this pier and an offer received from a combination of Dutch steamship lines of \$280,000 per annum. The decision has not yet been made as to whether to lease this pier to the Dutch lines or to have it operated by the United States Shipping Board.

Piers 1 and 2 are in use by the Army Transport Service and for vessels of the United States Shipping Board awaiting disposition. This base contains 3,800,000 square feet of warehouse space, of which 3,743,000 square feet of warehouse space is occupied with Government supplies and 57,000 square feet is not occupied. Supplies stored therein consist of three classes:

(a) Live storage supplies which are constantly being issued to posts, camps and stations and overseas for use of the Army.

(b) Dead or reserve storage supplies which are to be removed to one of the three Army reserve depots for long-time storage. This class of supplies includes war material which it is difficult to manufacture quickly in time of peace; in other words, which generally requires the installation of special machinery at factories and which, as a rule, has no commercial sales value commensurate with its cost. There is not a great deal of this material in this depot.

(c) Surplus supplies which await sale to the public or which have been sold and awaits removal.

It is desired to retain Government ownership and control of this property and to use it as the main supply depot of the Second Corps Area and for American troops in Germany, Porto Rico, and Canal Zone. These troops now number:

In Germany.....	15,364
Porto Rico.....	1,875
Canal Zone.....	5,978

Mr. ANTHONY. As I understand it, you have terminals on the Brooklyn side which are for storage?

Maj. GIMPERLING. Yes, sir.

HOBOKEN TERMINALS.

Mr. ANTHONY. Does the Government still own the terminals at Hoboken?

Gen. CONNOR. The Government still owns them. There are two of them which have been released to the Shipping Board under the provisions of the transportation act, and one of them, No. 1, is being used by the Panama Railway Steamship Co., half of No. 4 is used by the Shipping Board for the *Leviathan*, and the other half is used by the Transportation Service and will continue to be so used until the return of the bodies from France is completed.

Mr. ANTHONY. So you are using only one pier on the Hoboken side?

Gen. CONNOR. No; in addition to the north half of No. 4, we are using one-half of Pier 5 and Pier 6. Piers 5 and 6 are not suitable for ordinary commercial use, inasmuch as they have been condemned by the inspectors as unsafe.

Mr. ANTHONY. These port terminals were acquired by the War Department during the war?

Gen. CONNOR. Yes, sir.

Mr. ANTHONY. Have they been turned over to the Shipping Board or leased to them?

Gen. CONNOR. Nothing has been turned over to the Shipping Board except two of the Hoboken terminals. The President by proclamation retained the remaining parts of the Hoboken terminal until the bodies were all brought back from France, up to a maximum period of two years. He decided he would not turn over the Army supply bases to the Shipping Board inasmuch as they were built for the War Department, and he thought the title ought to remain in the War Department.

Mr. ANTHONY. Are there any other revenues accruing to the Government for the rental of those facilities?

Gen. CONNOR. The rentals from the different terminals during the past year amounted to about \$940,000, and you will realize that that was really only for one-half of the year because in the early part of the year they were in more or less active use by the Government.

Mr. ANTHONY. What is our total investment on the piers on the Hoboken side?

Gen. CONNOR. The investment is about \$7,500,000, which was paid to the Alien Property Custodian. Whether the funds were actually ever transferred to him I do not know. They were acquired at approximately that cost from the Alien Property Custodian. The South Brooklyn piers and the storehouse cost \$32,000,000. On that I have no differentiation as between the cost of the piers and the warehouses. These are enormous seven-story buildings. Two of the

piers are being used for Army purposes and for the Shipping Board, and Pier 4 is leased at \$240,000 a year. Pier 3 has just recently been advertised, and we have a bid of \$280,000 a year, but that comes from a combination of Dutch shippers, and the question is now before the War Department as to whether or not it would not be better policy to have the pier turned into a public pier by the Shipping Board rather than to lease it to a foreign corporation. That has not yet been decided.

Mr. ANTHONY. In your opinion, can those terminal properties which we built during the war be leased or operated on a basis that will bring in revenue to the Government commensurate with the amount of the investment?

Gen. CONNOR. No; not on the prices which they cost during the war. An effort was made to arrange to have the piers leased or handled by the municipalities on a basis of depreciation plus 4½ per cent interest on the investment. But no municipality and no company would agree to touch it at that figure because the prices paid during the war were so great that you can not get an adequate return from piers rented at that price. We are making every effort to release the piers as fast as they can be for commercial use, especially by the American mercantile marine.

Mr. ANTHONY. When the storage project at Brooklyn was first brought before the Committee on Military Affairs, Gen. Goethals estimated he could construct a concrete storage at about 35 cents a cubic foot.

Gen. CONNOR. That, in all probability, is about the price.

Mr. ANTHONY. The price really ran to about \$2 a cubic foot, did it not?

Gen. CONNOR. I should be surprised at that. My recollection is that the Bank of Manhattan building in New York, which was the most expensive building at that time, ran only about 90 cents a cubic foot, and that was a building with marble finish. That South Brooklyn warehouse type of fireproof storage ought not, in the prewar days, to have cost over 20 cents a cubic foot, but probably during the war it cost considerably more than that.

Mr. ANTHONY. What has become of that portion of the Hoboken terminals known as the Hoboken Railroad, which was railroad property?

Gen. CONNOR. It was the Hoboken Manufacturers' Railroad, which was acquired by the War Department, and the War Department possessed of that property. It was offered to the United States Shipping Board by the President recently, and I understand they are going to say they do not want it.

Mr. ANTHONY. Was that the only railroad property acquired in connection with those piers?

Gen. CONNOR. Yes, sir.

Mr. ANTHONY. Has that been paid for?

Gen. CONNOR. It has been paid for and delivered, and now we are waiting for an offer to purchase it, but no definite offer has been received.

Mr. ANTHONY. But there is a proposition for its sale by the Government?

Gen. CONNOR. We are waiting for an offer to come from the outside.

CHARLESTON AND ATLANTA TERMINALS.

Mr. ANTHONY. What use do you make of the terminals at Charleston?

Gen. CONNOR. They are no longer required for active terminal use. The terminals divide themselves into two parts. There is the storage part and the wharf part. The wharf part really consists of the landing for the ships and the wharf sheds adjacent. The storage is behind that. The storage sheds at Charleston are practically filled with lintars that belong to the Ordnance Department, and the other property——

Mr. ANTHONY (interposing). That is being used for dead storage?

Gen. CONNOR. It is being used for this surplus property for which there is no disposition.

Mr. ANTHONY. And it is not being used for the purposes for which those facilities were built as port terminals?

Gen. CONNOR. No, sir.

Mr. ANTHONY. Is it true that those terminals were built too far back from the port activities to be of any value?

Gen. CONNOR. No; that is not correct. In order to get an adequate terminal of the size we needed at Charleston it would have taken a large part of the area of the city of Charleston, and there was no room in the city. Therefore they went outside the city up the Cooper River, and there they built a splendid modern terminal. An endeavor was made to lease all the terminal to the municipality and to have them operate the terminal as a public utility. The terminal at Charleston is outside the corporation limits of the city of Charleston, and the city was unable to handle it in that way. So a local, quasi-municipal corporation was formed there, the board of directors of which is composed of five public officials. There is the president of the State Bankers' Association, the president of the Textile Workers' Association, the president of the Chamber of Commerce, and the president of the State Farmers' Association, so that there is that control within the board. There is a limitation on the profits that can be made, and that terminal is being operated as nearly like a municipal terminal as it can possibly be done with a private corporation and it has all the characteristics that it would have if it were a municipality handling it.

Mr. ANTHONY. When our subcommittee of the Committee on Military Affairs was at Atlanta a little over a year ago the statement was made to us that the Government was leasing a large warehouse and paying money for it at the time all of this storage at Charleston was unused.

Maj. GIMPERLING. This is the situation. During the war storage at Atlanta was very necessary for the supply of the very large number of Southern camps. These supplies were accumulated in Atlanta in leased warehouses because there is no Government-owned storage at that place. As the camps have been abandoned the storage space has been given up as far as possible. An investigation was made several months ago as to the advisability of removing all supplies from Atlanta, but it was found to be much more expensive to move them by rail than it would be to retain them there in that leased space and sell the surplus and cut down the regular stock, which is being done. We have released considerable leased space

in Atlanta. In the meantime the Ordnance Department had 200,000 bales of cotton linters in and around Charleston for which they needed storage space and that completely filled up the Charleston depot. Those linters have been sold recently, I understand, but have not yet been removed.

Mr. ANTHONY. They are sold but they are not out of the hands of the Government yet.

Maj. GIMPERLING. They are not out of the hands of the Government yet; no, sir.

Mr. SLEMP. We do not really need any inland and port facilities at either Charleston or Atlanta, do we, so far as any governmental use of those facilities is concerned?

Gen. CONNOR. We need storage space at all those places, I believe. At Charleston there was no permanent port storage.

Mr. SLEMP. Is it proposed to put the Government to any expense next year in regard to either of those places?

Gen. CONNOR. At Charleston there will be an expense because the storage space is full. The wharves will bring in some revenue and the operation of the railroad yards adjacent thereto will bring in a revenue, so that for the first month that the contract has been in operation the expenditures have been about \$17,000, and the receipts about \$79,000. And that has not yet gotten under way because the contract was let only a little over a month ago.

Mr. SLEMP. You think there is a practical revenue producing investment there?

Gen. CONNOR. There is no doubt about that whatsoever. But all the receipts from that source except the cost of operating the trains and the locomotives go into the miscellaneous receipts and do not come to the Quartermaster Department funds.

Mr. SLEMP. As I understood your statement, the Government does not propose to operate the facilities at Charleston.

Gen. CONNOR. We would operate the railroad yards, because they would be used in connection with the storage property as well as the wharf facilities and we could not turn over the railroad yards to anybody to operate because they serve both activities.

Mr. SLEMP. So that you have your storage there; what is the use of the other facilities?

Gen. ROGERS. I think the information you desire is this: You want to know whether we can dispose of both of these depots. We need one of them to make issues to the troops in that vicinity.

Mr. ANTHONY. Gen. Lord, you spoke of the fact that the money which had been previously allotted for inland and port storage was still available for the necessities of the inland and port storage during the next fiscal year.

Gen. LORD. Yes, sir.

Mr. ANTHONY. Those appropriations, I suppose, are war appropriations?

Gen. LORD. They are war appropriations.

Mr. ANTHONY. How long do they remain alive?

Gen. LORD. Until expended.

Mr. ANTHONY. How long after the conclusion of peace?

Gen. LORD. They are always available until expended.

Mr. ANTHONY. Would it not be a good business proposition to have those moneys revert to the Treasury and reappropriate them in accordance with the necessity?

Gen. LORD. That would be the proper procedure, when the obligations for the settlement of which these moneys are held are finally determined. Effort is being made to close up these claims by June 30, next, as far as possible, but until we dispose of the claims and determine all the obligations, we can not tell how much can be turned back into the Treasury.

Mr. ANTHONY. You will put a statement in the record showing the amount of such funds?

Gen. LORD. That is covered in my statement.

Mr. ANTHONY. Are there any other items in this bill to which similar funds are applicable?

Gen. LORD. The one to which I called attention in connection with the hearing of Gen. Phillips relative to his items. If you will remember he consolidated two of the items that appear in the current appropriation bill, and under one of those appropriations, the item providing for Ordnance supplies, he has something of an unexpended balance. I put that in the record at that time. The subject of continuing appropriations was discussed at the hearings before the Senate Committee on Military Affairs a year ago in connection with the bill for the current year, and I submitted in those hearings at that time quite an elaborate statement of the no-year appropriations on the books of the Treasury at the present time. Most of them are very small amounts.

Mr. ANTHONY. This is the largest amount?

Gen. LORD. This is the largest one, yes, sir.

Mr. ANTHONY. We want in the hearing a statement of the items of this proposed expenditure for the fiscal year 1922 for inland and port storage, because it might be felt advisable to eliminate some of them and we might want to provide in the bill that such action may be taken.

Gen. LORD. The Quartermaster General has presented to you an itemization of the needs under the estimate.

Revised estimate for appropriation, "Inland and port storage and shipping facilities, fiscal year 1922."

	Buildings for inland and port storage, construction of.	Buildings for inland and port storage, maintenance and repair of.	Compensation to employees in connection with storage and shipping facilities.	Docks, tracks, handling, and other facilities in connection with storage and shipping, including installation of.	Docks, tracks, handling, and other facilities in connection with storage and shipping, maintenance and repair of.	Handling, and other facilities installed in buildings for storage and shipping purposes, purchase and installation of.	Handling, and other facilities installed in buildings for storage and shipping purposes, maintenance and repair of.	Rental of grounds or buildings for storage and shipping facilities.	Cold storage.	Necessary expenses in connection with storage and shipping facilities not covered by other items.	Total.	Per capita, 300,000 men.	Per capita, 175,000 men.
RESERVE DEPOTS.													
Schenectady.....		\$10,870.40	\$56,678.89		\$8,908.77	\$851.23	\$1,985.90			\$1,336.80	\$80,631.99	\$0.268	\$0.46
Columbus.....		19,715.32	154,176.18		21,549.49	4,266.18	1,011.67			20,066.97	110,775.81	.369	.633
New Cumberland.....		17,056.30	154,748.99		23,245.21	9,078.84	8,511.00			4,255.76	106,896.10	.356	.61
ARMY SUPPLY BASES.													
Boston.....		21,034.38	169,612.86								190,647.24	.635	1.089
Brooklyn.....		22,063.08	167,457.88		26,642.11						216,163.02	.72	1.235
Charleston.....		13,026.40	184,579.35		43,446.30		3,404.40			534.72	144,991.17	.483	.828
New Orleans.....		16,476.09	148,598.53		43,008.75	4,266.18	13,057.72		\$15,441.45	2,384.85	133,222.57	.444	.761
San Antonio.....									2,837.25		2,837.25	.009	.016
Porto Rico.....		53,338.77	194,606.99		213,499.53		20,412.78		2,837.25		2,837.25	.009	.016
Norfolk.....		16,670.31	148,123.33						1,251.23	2,568.07	485,675.37	1.618	2.775
Philadelphia.....	\$98,000.00										257,793.64	.859	1.473
Personnel Quarter-master Corp.....			978,583.00								4,094,716.48	13.649	23.398
GENERAL SUPPLY DEPOTS.													
Atlanta.....						510.74	1,146.14		3,319.58	32,053.20	37,029.66	.123	.212
Baltimore.....							2,950.48		3,040.40	1,069.44	7,060.32	.023	.04
Boston.....					24,135.07	6,818.88	4,783.18				35,737.13	.119	.204
Chicago.....					21,378.10		1,114.94		156,296.54		187,788.58	.625	1.073
San Francisco.....						13,630.29	170.22			96.25	13,896.86	.048	.079
Indianapolis.....						4,539.92	2,837.00				7,376.92	.024	.042
New York.....						2,244.59	4,922.30		114,163.10	4,162.14	118,325.24	.24	.451

SCHUYLKILL ARSENAL, PHILADELPHIA, PA.

Mr. ANTHONY. Does your proposed expenditure of \$10,000,000 contemplate any new construction at all?

Col. HANNAY. It does not contemplate new construction, except one item which we are asking, and that is for the use of \$93,000 of the amount which may be available from unexpended balances to be used in the erection and completion of a power house in connection with quartermaster warehouse No. 5 at Philadelphia, Pa.

Mr. ANTHONY. You have included that as new language in the bill?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. I wish you would make a statement as to the necessity for that expenditure.

Lieut. BRILL. At Philadelphia the Schuylkill Arsenal has been used as a manufacturing plant, and we have been manufacturing there about one-third of the clothing for the use of the Army. Last spring the buildings were inspected by the inspection engineer of the city of Philadelphia and were condemned by him as very hazardous to life from fire.

Mr. ANTHONY. All of the buildings there?

Lieut. BRILL. All the buildings used for manufacturing purposes. They are all quite old, I believe, and in connection with that after he had made that report a survey of those buildings was made to see how much it would cost to put them into shape so they could continue to be used and would meet with his approval. As that was finally determined, it would cost \$263,931 to make the changes which he said must be made. That was believed to be an excessive cost for the Schuylkill Arsenal buildings in view of the fact that they were not originally constructed for that purpose, are very expensive to operate as manufacturing plants, and are not at all properly arranged for manufacturing and are poorly located.

Mr. ANTHONY. You are only asking for money for the erection and completion of a power house?

Lieut. BRILL. In order to obviate the spending of that money, it was decided that warehouse No. 5, which was at the Philadelphia depot and was quite a large building, 981 feet long by 161 feet wide, could be remodeled to make it suitable for a power house; that could be done at an expense of \$189,000, saving almost \$100,000, so that remodeling was authorized, and this \$93,000 which is asked for is to provide the money to build the power house and install the power plant necessary to operate this warehouse No. 5 as a manufacturing plant.

Mr. ANTHONY. So the remodeling of that warehouse has already been completed?

Lieut. BRILL. It has already been begun.

Mr. ANTHONY. And this is to finish it for power-house purposes?

Lieut. BRILL. To finish it so they can make it a complete manufacturing plant. The people who operate the factory claim that at warehouse No. 5 they can operate very much more efficiently than at the Schuylkill Arsenal, because its location is such that the transportation charges both on the raw material and the finished product will be less.

Mr. ANTHONY. What do you use for power there, steam?

Lieut. BRILL. Yes, sir.

Mr. ANTHONY. Do you generate electricity with which to operate the machinery?

Lieut. BRILL. No, sir; all electricity used comes from the Philadelphia Electric Co. This plant is for steam necessary for heating, etc.

Mr. ANTHONY. Col. Hannay, is this expenditure considered absolutely necessary to keep the plant going?

Col. HANNAY. Yes, sir; this is a very important part of our organization and results in a great saving; it means a saving to the Government.

Mr. SLEMP. I want to ask Gen. Lord a question about these claims. You spoke about reserving a lot of money for the payment of claims. Are the claims to which you refer relative to port and inland storage business only?

Gen. LORD. The claims which we had under discussion?

Mr. SLEMP. Is the money you are expecting to retain for the settlement of all claims, or does that relate to the settlement of claims in connection with inland and port storage?

Gen. LORD. Under this appropriation were the claims which we had under discussion, pertaining exclusively to this appropriation.

Mr. SLEMP. What is the amount of the claims outstanding against the Government?

Gen. LORD. That I do not know. At your request we are making a study of this subject in the War Department Claims Board and elsewhere for the purpose of submitting a statement which will cover the entire amount of the outstanding claims under all appropriations. I have a statement which I think I showed you, covering the amounts that will be needed for withdrawal from the Treasury under the various bureaus for the balance of the fiscal year, and we are now pursuing our investigations along other lines.

Mr. SLEMP. You do know the amount of outstanding claims against the Government in connection with inland and port storage?

Gen. LORD. Yes, sir.

Mr. SLEMP. What is that?

Gen. LORD. We do not know to-day; I am having it compiled at the present time.

Mr. SLEMP. Then, how could you make the suggestion that this money must be retained for the settlement of claims?

Gen. LORD. Because certain amounts have been definitely put aside to meet claims. We make reservations to cover certain outstanding claims. I have requested a report on the amount of all outstanding claims against all appropriations. The claims board has not yet been able to give me the total amount of such outstanding claims, but we will have it shortly. They should be cleaned up by June 30.

Mr. SLEMP. Your statement last year, as I remember it, was that something like 95 per cent of the claims have been settled, and the press carried a statement that 99 per cent of all claims against the Government had been settled. I was wondering if that would apply to the port and inland storage business.

Gen. LORD. It might not apply in just that proportion. I do not know who authorized that statement, but I accept it as correct. The War Department Claims Board, as stated, is making a compilation of amounts necessary to cover all outstanding claims.

Mr. SLEMP. Surely the War Department Claims Board has a list of claims of this kind.

Gen. LORD. Yes. You want the total amount of reservations made to cover demands made under this appropriation.

Mr. SLEMP. And also the percentage of the settlement of those claims heretofore.

Gen. LORD. Under this appropriation?

Mr. SLEMP. Yes.

Gen. LORD. I will get that for you.

(Statement referred to is as follows:)

Of the maximum amount of claims filed in the War Department Claims Board, which is chargeable to the inland and port storage facilities appropriation, \$9,468,973.82, or over 99 per cent, has actually been approved, and has either been paid or is in the hands of the finance officer awaiting payment. Claims amounting to \$60,889.86, less than 1 per cent, are now before the War Department Claims Board for negotiation. Information was obtained from the records of the office, Chief of Finance and the War Department Claims Board.

Mr. SLEMP. I want to ask Gen. Rogers to put in the record, if it is agreeable, in connection with the hearings of the Quartermaster General's Department, the number of officers in the Quartermaster General's service provided for next year, the number of enlisted men, the number of civilian employees it has now and the number estimated for next year, and compare those figures with the figures of 1916. You might make that in the form of a tabulated statement.

(Statement referred to is as follows:)

Statement showing personnel of the Quartermaster Corps at present, and personnel necessary for the fiscal year 1922.

Period.	Commis- sioned officers.	Enlisted men.	Civilian employees.	Cost of civilian employees
Jan. 14, 1921.....	1,050	19,532	44,893	\$46,228.19
Estimate, fiscal year 1922	1,050	20,000	31,339	34,702.74

NOTE.—Owing to the brief time given for obtaining information relative to fiscal year 1916, and inadequacy of personnel, it was not possible to obtain data from pre-war records in time for printing in record.

Col. HANNAY. I should like to add in connection with the request that the number of officers is that provided by law, 1,050, and the number of enlisted men is 20,000. We had for all purposes, about two months ago, approximately 44,000 civilians. We are now asking for a total of 31,000, all told, including all appropriations. But in comparing the number of civilian employees and the number of officers and enlisted men in 1916 with the present requirements of the Quartermaster Corps it is a rather unfair comparison, in view of the act of June 4, 1920.

Mr. SLEMP. It would not be unfair simply to give the facts. We may draw a favorable conclusion from them.

Mr. ANTHONY. I think Col. Hannay means to say that there have been a number of changes due to the consolidation of various departments in the Quartermaster Corps.

Col. HANNAY. Not only that, but activities which did not pertain to any one bureau previously in the concentration of procurement in

the Quartermaster Corps of all supplies except purely technical supplies thrown upon the Quartermaster Corps. Furthermore by the concentration of construction and transportation in the Quartermaster Corps. and the personnel necessary for the procurement, storage, and issue of all supplies which formerly did not pertain to one bureau. That is what I mean.

Gen. ROGERS. We are also taking care of the large surplus and reserve stuff. I think we have something like \$1,181,000,000 worth of surplus supplies.

Mr. ANTHONY. I think if you could put in the record a statement as to the enlarged activities that will be included in the Quartermaster Corps for the fiscal year 1922 and compare that with 1916, we would like to have that.

Col. HANNAY. We will be glad to do that. (See p. 796.)

Gen. LORD. Mr. Chairman, I think Mr. Cramton asked for the same comparative statement covering all bureaus of the War Department.

EXPENDITURES FOR RENTS FOR STORAGE.

Mr. ANTHONY. Col. Hannay, how much under this item do you contemplate expending for rents for storage purposes during the next fiscal year?

Col. HANNAY. \$1,400,535.

Mr. ANTHONY. What is the nature of the rented properties you desire to maintain?

Lieut. BRILL. I have a complete statement of the properties to be rented.

Mr. ANTHONY. What are the largest propositions?

Lieut. BRILL. Two of the largest ones are warehouses Nos. 23 and 24 at San Antonio, Tex., which are approximately \$13,000 for the year. Then there are two parcels of land in the thirty-ninth ward of Philadelphia, the rental being \$15,500. Those are rented from the Girard estate. The Philadelphia depot is located on that land. Another large item is \$12,500 for 117 acres of land for a quartermaster storehouse at Chicago, Ill.; \$14,900 for the rental of warehouse No. 1 at Atlanta, Ga.; \$27,000 for rental at Thirty-ninth and Federal Streets, Chicago, Ill. I think that is a warehouse.

Mr. ANTHONY. What is that warehouse in Atlanta?

Col. HANNAY. We own no warehouse there.

Mr. ANTHONY. That calls for the rental of warehouse No. 1. What is that used for?

Col. HANNAY. That is one of the supply depots for that corps area.

Mr. ANTHONY. Is that the Candler warehouse?

Gen. ROGERS. I think not, Mr. Chairman.

Mr. ANTHONY. What do you carry in that Atlanta warehouse?

Col. HANNAY. General supplies for the Army.

Mr. ANTHONY. The Army has no storage facilities of its own there?

Col. HANNAY. No, sir.

Mr. ANTHONY. You are carrying supplies there that are needed for the Army?

Col. HANNAY. For troops in that corps area, those needed in the immediate vicinity. Many of them are supplied direct from other depots.

Mr. ANTHONY. For what are you using this property which you are leasing in Philadelphia?

Col. HANNAY. The entire depot is on rented property in Philadelphia.

Mr. ANTHONY. The entire storage depot?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. Does the Government own the building?

Col. HANNAY. The Government owns the buildings; yes, sir.

Mr. ANTHONY. What do they want that building for?

Lieut. BRILL. The one that is being remodeled we want for a manufacturing plant.

Mr. ANTHONY. Why does not the Government purchase the land on which the buildings are located?

Gen. ROGERS. I think we have asked for money to purchase certain parcels of land.

Mr. ANTHONY. Has the Government a contract for the purchase of that land?

Gen. ROGERS. I think so; yes, sir.

Mr. ANTHONY. So it is protected?

Gen. ROGERS. It is the same way at Baltimore. The storehouses at Baltimore are also on leased land.

Mr. ANTHONY. You have accounted for about one-tenth of the rentals you are going to pay out. Those buildings are scattered all over the country.

Col. HANNAY. Yes, sir.

Mr. ANTHONY. You are still maintaining the expensive storage warehouses at San Antonio which you had a year ago?

Lieut. BRILL. There are 42 different buildings rented in San Antonio.

Mr. ANTHONY. What is the idea of maintaining so much storage at San Antonio?

Col. HANNAY. That is the policy of the War Department.

Mr. ANTHONY. It was explained to us a year ago that they were trying to carry six months' supplies for an Army of 75,000 men at San Antonio. Is not that rather a costly thing to do?

Col. HANNAY. It is rather costly, but whether or not the necessity for it exists is something which of course we do not know.

Mr. ANTHONY. You have no control over that?

Col. HANNAY. We do not, and we do not know what the necessity is, of course.

Mr. ANTHONY. Has the Government any storage facilities of this nature that it is not utilizing at this time?

Col. HANNAY. I am sure we have not.

Mr. ANTHONY. Every Government-owned warehouse is full?

Col. HANNAY. Yes.

Maj. GIMPERLING. One of the worst features of this congestion as far as the storage is concerned, has been the abandonment of a number of our cantonments. The construction service has sold or salvaged a good deal of supplies and fixtures and is continuing to do so, and we are trying to sell this vast accumulation of material but there is much of it which we not only can not sell but we do not want to sell. We have to make storage space available for that. I can say absolutely that the storage space is decreasing; that is, it-

occupied storage space is decreasing daily, even with the incoming shipments. But they have been very heavy.

Mr. ANTHONY. In other words, you are not able to dispose of your surplus fast enough to make room for material that you have to take care of because of the abandonment of the camps?

Maj. GIMPERLING. In some cases that is true. Take the case at Camp Kearny, Calif. We had to hold the quartermaster area at that camp and operate it as a subdepot under San Francisco because there was not available storage space in our warehouses at San Francisco to contain that material. The same thing applies to Camp Custer. We are operating a portion of the quartermaster storage warehouses, issuing to troops direct from Camp Custer, and the same thing applies at Camp Gordon, Ga., adjacent to Atlanta, where these storage warehouses are planned.

Mr. ANTHONY. Is the Army constantly shipping its material?

Maj. GIMPERLING. No; that is what we are trying to avoid.

Mr. ANTHONY. When we move a division of troops across the country, as we have been doing lately, do you carry all the material of that division with it, or leave it in storage where the division camp may be, and let the material be taken by the troops that go to the new station?

Maj. GIMPERLING. We leave that which can be issued at the camp to which it is going. The division takes its own machine guns and clothing and personal equipment, but leaves the bulky equipment.

Mr. ANTHONY. When you move troops of one division, as you did recently, from Camp Funston to Camp Meade, does that division take all of its transportation along with it, or do you leave it behind in storage to be utilized by troops which may go in there? What is the policy of the War Department in that regard?

Gen. CONNOR. In some cases they move troops with their equipment; in other cases they leave the equipment behind and issue it from local storage at the new station. I do not know whether there is any general rule, because conditions differ, but I can say as far as possible they leave such equipment as they do not need or where it would be better to issue new equipment in the new area to which they go.

Mr. ANTHONY. It seems to me it would be the proper policy to avoid moving as much material as possible.

Gen. CONNOR. That is apparently what they are doing. Of two Artillery regiments to go to Honolulu, one takes its transportation and vehicles with it, but the other takes nothing except personnel and goes out there and is equipped from the storage in Honolulu.

Mr. ANTHONY. I believe I asked you to put in the record the cost of the removal of troops from Camp Funston?

Gen. CONNOR. Yes, sir.

Mr. ANTHONY. That would include all the impedimenta that went with them?

Gen. CONNER. Yes.

Mr. CRAMTON. Maj. Gimperling referred to the storage at Camp Custer. What expense is there to the Government in connection with the use of Camp Custer for storage at this time?

Maj. GIMPERLING. I do not know.

Mr. CRAMTON. Is there any particular expense? That is not on leased land, and the buildings are owned by the Government?

Gen. ROGERS. I think Maj. Gimperling was trying to explain that we are trying to save expenditure for freight and keep these sub-depots open as long as possible, and make issues direct from the sub-depots instead of concentrating and moving the stuff from Camp Custer to the Chicago depot. We are keeping these open as long as possible and issuing direct to troops from the abandoned camps.

Mr. CRAMTON. I got the impression that perhaps he was referring to it as an example of the expense.

Gen. ROGERS. No. That is one reason why we have had to keep some of the leased storage because it would be less expensive to the Government to continue to lease storage than to pay rail transportation.

AUTHORITY TO ACQUIRE LAND.

Mr. ANTHONY. Col. Hannay, you are asking in this item for inland and port storage for authority to acquire land. It has been the policy of the Committee on Military Affairs not to give this general authority to acquire land, but to grant it only in specific cases. Can you tell us where you propose to make purchases of land?

Lieut. BRILL. I know of no proposed land purchase under this appropriation for next year.

Gen. ROGERS. I think the proposed land purchases for the activities of the Quartermaster Corps are being handled by the Military Committee. I think an officer of the Construction Service appears with the Secretary of War before the Senate committee in regard to that matter.

Mr. ANTHONY. You are asking for authority in this bill to acquire land.

Col. HANNAY. The Quartermaster General did not request that.

Gen. LORD. That was included in the estimate submitted by the office of the Quartermaster General.

Mr. ANTHONY. Is it to the advantage of the Government to acquire these pieces of land on which the Government already own the permanent structures?

Gen. ROGERS. It is in certain cases, but I see no reason why it should be here.

Mr. ANTHONY. I wish you would put it in the record a statement of the case, showing where the Government owns the building but does not own the land, where you think it would be advantageous to the Government to purchase the land, and also specifying any other points where you think it would be advantageous to the Government to complete the purchase rather than to continue to pay rental on the land.

Gen. ROGERS. Yes, sir.

(The statement referred to is as follows:)

Army supply base, New Orleans, La.—This property consists of water front property on which have been constructed wharves and warehouses at a cost of approximately \$12,500,000. Possession was taken in June and August, 1918, under requisition proceedings for temporary use, and later changed to lease with option to purchase, which option has been exercised. These lands can be acquired for \$282,000, or approximately one forty-fifth of the cost of Government improvements already erected on the property. Approved by the Assistant Secretary of War, July 4, 1918.

Army supply base, Boston, Mass.—This is a port terminal, the base proper, consisting of 57 acres, being already owned by the Government. The area yet to be acquired contains 789,960 square feet. Possession was taken under requisition proceedings and \$22,750,000 was expended on the entire project. The land to be acquired is the

key to the said terminal and without which the terminal could not be used or disposed of to advantage. The amount required to complete acquisition of land is \$1,706,600. Approved by the Acting Secretary of War, April 5, 1918.

Army supply base, Brooklyn, N. Y.—Possession of this property was taken under requisition proceedings in April, May, and June, 1918, and wharves and other terminal facilities erected thereon by the Government at a cost of approximately \$26,000,000. The amount required to complete acquisition of land is estimated at \$3,555,000. Approved by the Assistant Secretary of War, April 27, 1918.

Army supply base, Philadelphia, Pa.—Possession of this property was taken under requisition proceedings in July and November, 1918, and by contracts entered into in June, 1919, wharves and terminal facilities have been erected at a cost of approximately \$13,000,000, and it is estimated that the lands may be acquired for \$766,937. Approved by the Assistant Secretary of War, June 28, 1918.

Army supply base, Charleston, S. C.—This property consists of terminal, storage, and shipping facilities, possession of which was taken under requisition proceedings in April, 1918, and improvements erected at a cost of approximately \$16,500,000. Acquisition of title to the lands embraced in the site may be completed at a cost of \$135,000. Approved by the Assistant Secretary of War, May 9, 1918. Additional approval for ordnance depot by Assistant Secretary of War, May, 1918.

Army supply base, Norfolk, Va.—This property consists of wharves and terminal facilities, possession of which was taken by requisition proceedings and contracts to purchase and improvements have been made at an expense of approximately \$26,675,000. Purchase of site may be completed for approximately \$337,000. Approved by the Assistant Secretary of War, December 29, 1917.

Army Reserve Depot, New Cumberland, Pa.—This property embraces 963 acres, 403 of which have already been acquired, but there remain 124 acres included in requisition proceedings and 436 acres in contracts to purchase. Government improvements have been made amounting to \$4,385,000. Acquisition of land may be completed for \$92,500. Authority of the President, February 22, 1918.

Army Reserve depot, Schenectady, N. Y.—This property consists of 221 acres taken under requisition proceedings, on which \$4,680,000 has been expended in Government improvements. All but 8 acres have been paid for, and it is estimated that \$3,000 will be required to complete acquisition of lands. Authority of the President, February 22, 1918.

Quartermaster depot, Jeffersonville, Ind.—This property consists of 208 acres, possession of which was taken under requisition proceedings and contracts to purchase. Approximately \$2,737,300 have been expended in improvements, and the amount estimated to complete acquisition of lands is \$225,000. Approval of Assistant Secretary of War, April 2, 1919.

Quartermaster warehouse, Baltimore, Md.—This property consists of 33.37 acres, which was taken under requisition proceedings in July, 1918, and approximately \$1,909,000 later was expended on improvements. Purchase of site may be completed for \$100,000. Approved by the Secretary of War, October 27, 1917. Additional approval by Assistant Secretary of War, December 5, 1917.

Quartermaster warehouses, Newport News, Va.—This property consists of 21 warehouses, erected at a cost of approximately \$1,995,000. Possession is held under lease containing option to purchase. Amount required to acquire site is \$223,670. Approved by Secretary of War, July 7, 1919.

Ordnance Depot, Pedricktown (Oldmans), N. J.—This property consists of approximately 1,825 acres, taken under requisition proceedings for ordnance-storage purposes. Approximately \$3,487,273 has been expended in improvements, and site may be acquired for \$250,000. Approved by Assistant Secretary of War, June 20, 1918.

Ordnance and aviation depots, Middletown, Pa.—This property comprises 397 acres on which the ordnance and aviation depots have been constructed. Approximately \$1,398,700 has been expended in Government improvements. Approximately \$225,000 is required to purchase the land. Purchase is necessary to avoid payment of extensive damage claims.

Ordnance Proving Ground, Lakehurst, N. J.—This property consists of 875 acres, taken under requisition proceedings, on which \$1,500,000 has been expended in improvements. It is estimated that title to the land may be acquired for \$15,000. Approved by the Secretary of War, June 4, 1919.

Field Artillery Range, Tobyhanna, Pa.—This property consists of 1,338.95 acres, included in condemnation proceedings and 884.2 acres under contracts to purchase. These lands are needed to provide access to and full use of 18,382 acres already purchased. The same may be acquired for \$7,533.67. Act of August 29, 1916, appropriated \$300,000. Army appropriation act for fiscal year 1918 appropriated \$125,000.

Selfridge Field, Mount Clemens, Mich.—This property consists of 640 acres included in condemnation proceedings, on which approximately \$2,455,460 was expended in Government improvements. The land may be acquired for \$190,000. Approved by the Secretary of War June 14, 1919.

Camp Bullis, Leon Springs, Tex.—This property consists of 4,756 acres, being acquired under contract as addition to Leon Springs Military Reservation. Funds for the purchase of these lands were appropriated in the act of July 9, 1918, but the act of July 11, 1919, prevented payment therefor. The amount necessary to complete acquisition is \$95,000. Approved by the Secretary of War June 23, 1919.

General Hospital No. 19, Azalea, N. C.—This property consists of 299.58 acres taken under requisition proceedings, and 86.39 held under contracts to purchase; \$2,668,600 has been expended in Government improvements thereon. The amount required to complete acquisition of lands is \$55,000. Approved by the Assistant Secretary of War November 29, 1918; additional approval by the Assistant Secretary of War January 30, 1919.

Recuperator plant, Detroit, Mich.—This property consists of 20 acres acquired under requisition proceedings on which \$1,900,000 has been expended in Government improvements. The site may be acquired for \$140,000. Approved by the Acting Secretary of War April 29, 1919.

Right of way for sewer, housing project, Bethlehem, Pa.—This covers fee for a right of way for a sewer owned by the United States, built in connection with Government housing project at Bethlehem, Pa., and was included in condemnation proceedings filed in October, 1918. The award in condemnation is \$275, which is acceptable to the owner. Approved by the Assistant Secretary of War October 25, 1918.

Dumps Creek coke plant, Russell County, Va.—This property consists of 126.17 acres conveyed to the Government for a nominal consideration, wherein the Government contracted to pay for abstract of title which was later furnished. The amount necessary to complete payment thereof is \$2,000. Approved by the Secretary of War March 30, 1920.

United States Aeronautical Engine Co., New York.—Tract of approximately 30,826 square feet leased for erecting a building to be used in connection with above engine company and on which a building was erected which cost the Government approximately \$90,000. The lease provides for renewal not longer than June 30, 1922, at annual rental of \$1,500, and also that Government may purchase land at \$1.10 per square foot. Building now rented at \$7,000 per year. Building being terra cotta can not be sold without land. Estimated cost to purchase, \$33,908.60.

Big Bethel water development, Hampton, Va.—Tract of approximately 133.8 acres to be purchased at a cost of \$30,000 plus 6 per cent on that amount from December 1, 1918, to date purchase is completed. The Government has erected a dam, power plant, filtration plant, pumping station, etc., on this land at a total cost of \$1,029,000. Area to be purchased includes lands flooded by construction of dam. Must be purchased to prevent the loss of almost the entire investment.

Souther Field, Americus, Ga.—Tract of approximately 4.6 acres which will cost \$550. Land condemned December 24, 1918, and possession taken. Sewage disposal plant has been constructed thereon. Proceedings are still pending and are expected to be completed shortly.

Arcadia, Fla.—Right of way for railroad track. Strip of land 30 feet wide and 1.5 miles long on which has been built a spur from the main line of the Atlantic Coast Line Railroad to Carlstrom and thence to Dorr Field. Estimated cost, \$5,000.

Belleville, Ill.—Three parcels of land containing total of 3.88 acres on which a railroad spur and reservation fence have been built. Unless acquired, a new railway siding and new fence will have to be built, either of which would cost more than the purchase price of land. Owners agree to sell for \$200 per acre, or total of \$776.

Mount Clemens, Mich.—Railroad right of way over lands of 12 property owners total of 7.246 acres, to be purchased for approximately \$15,866.20. The War Department claims board has rendered a verdict granting damages to these property owners amounting to \$13,634.97, which award has been returned for reconsideration. Selfridge Field, which is served by this railroad spur, has been authorized purchased by Congress. This spur is necessary to the operation of this field.

Portsmouth (Va.) water development.—Thirty-two tracts containing approximately 248 acres of land submerged by water of Lake Cahoon, caused by increased height of dam and spillway constructed by the Government during the war. Estimated cost to acquire, \$21,909.75. Negotiations have been completed with owners of 21 tracts covering 109.6 acres at a cost of approximately \$11,554.25. Condemnation proceedings have been instituted in remaining cases covering 137.7 acres. It is expected that awards for this will total \$10,355.50, making the total listed above. The increase in the Portsmouth city water supply system was absolutely necessary to provide for

Army and Navy activities in this region. The increased height of the dam was one part of the total project for increasing this system.

PURCHASE OF HOBOKEN DOCKS.

Mr. ANTHONY. Gen. Connor, you say the money for the purchase of the Hoboken docks from the German steamship companies has been paid to the Alien Property Custodian. I suppose the moneys are there and are awaiting such settlement as we may make with the German Government?

Gen. CONNOR. I take it that that is so. The only statement I have is that it was acquired through purchase from the Alien Property Custodian.

Mr. ANTHONY. When the money is paid into the hands of the Alien Property Custodian, of course, the War Department is through with the transaction?

Gen. CONNOR. Yes, sir.

Mr. CRAMTON. Are those docks, which I understand the Government owns, at Hoboken under lease in part to commercial concerns?

Gen. CONNOR. Three and one-half of them are, No. 1, No. 2, No. 3, and one-half of Pier No. 5.

Mr. CRAMTON. Did your statement include any reference as to whether or not those concerns are living up to their contracts in the use of those docks?

Gen. CONNOR. They are, sir.

Mr. CRAMTON. I was given information in October that at least one of them was seriously failing to live up to its contract, causing very great inconvenience to the transportation service.

Gen. CONNOR. You mean the Moore-McCormick Co.?

Mr. CRAMTON. I do not recall the name of the particular company.

Gen. CONNOR. It was almost decided to revoke the terms of their contract at one time for that reason.

Mr. CRAMTON. Did your statement include any expression of opinion as to whether the use of those docks by the Government was being seriously interfered with by the lessees?

Gen. CONNOR. No; but they are not interfering at the present time because no leases are made until the property is known to be free for commercial use, and as Chief of the Transportation Service I would not recommend any lease until they were free.

Mr. CRAMTON. I think the one I had in mind was used one-half by the Government and the other half by the commercial concern.

Gen. CONNOR. There was continual friction, and we built a fence in the middle of the wharf and we have had no trouble since then.

Gen. ROGERS. We are keeping them because we want to hold them until the bringing of the bodies from France is completed.

Mr. CRAMTON. On account of this division of the dock there was some claim made that we had left insufficient room for the use of the Government transportation, getting around to the points desired.

Gen. CONNOR. We have no trouble about that ourselves.

CHANGE IN LANGUAGE.

Mr. ANTHONY. You are asking for some new language in this item. You ask to have the words "and for cold storage" inserted in this item. Have you not cold-storage facilities now?

Col. HANNAY. We are paying for cold storage from this appropriation, and the appropriation is not specific. This new language is to make it specific.

Mr. ANTHONY. Have you been paying for cold storage from some other appropriation heretofore?

Col. HANNAY. Prior to the war, but not during this fiscal year.

Mr. ANTHONY. Is that language necessary to enable the War Department to operate any cold storage?

Col. HANNAY. It is desirable from the comptroller's standpoint.

Gen. LORD. Yes; that is true. There has been allotted for this purpose \$638,895.48. There has always been some doubt and contention as to where that particular class of expenditure should be allocated.

Mr. ANTHONY. Are you carrying large classes of supplies in cold storage at this time?

Col. HANNAY. We were carrying at the beginning of the fiscal year large quantities of frozen meats.

Mr. ANTHONY. I understood you had disposed of your surplus stock of frozen meats.

Col. HANNAY. Yes. At present we are only carrying such quantities as are necessary for the supply of troops.

Mr. ANTHONY. How much of an expenditure would that involve for the next year?

Col. HANNAY. \$350,000.

Mr. ANTHONY. So that that amount is about cut in half?

Col. HANNAY. It is about cut in half, yes sir.

Mr. ANTHONY. What is the necessity for paying such a large sum for cold storage? Does not the packer usually carry all the Government supplies of beef in his own cold-storage plant until the Government actually acquires them?

Maj. GIMPERLING. In some cases they do and in some cases they do not.

Mr. ANTHONY. Where do you need to put in cold storage large quantities of beef, for instance?

Maj. GIMPERLING. Well, in the Bush Terminal we were paying a sum of money. I do not remember the exact sum.

Mr. ANTHONY. That is held for export there?

Gen. ROGERS. For the forces in Germany, Mr. Chairman.

Maj. GIMPERLING. In San Francisco the same thing applies to shipments for Hawaii and the Philippine Islands.

Mr. ANTHONY. You do not own the cold-storage plant in San Francisco?

Maj. GIMPERLING. No, sir.

Col. HANNAY. The largest item, Mr. Chairman, is in Chicago, and it includes, of course, items for the Canal Zone, Porto Rico, Honolulu, and the Philippine Islands.

CHICAGO COLD STORAGE PLANT.

Mr. ANTHONY. How much do you propose to spend in Chicago for cold storage?

Col. HANNAY. The amount is \$156,295.54.

Mr. ANTHONY. Chicago is the center of the meat-packing industry. Why do you have to assemble products that need cold storage?

those warehouses instead of leaving those products in the cold storage of the contractor until you need them?

Col. HANNAY. We will put that statement in the record.

Mr. ANTHONY. We would like to know why.

Maj. GIMPERLING. Those purchases are made by the subsistence branch.

Mr. ANTHONY. Did you not buy, under the authority of a recent appropriation bill, a cold-storage plant in Chicago?

Col. HANNAY. There was none procured.

Mr. ANTHONY. You asked for authority that was not given?

Col. HANNAY. We did not procure any plant there.

Mr. ANTHONY. Is this item for the rental of a cold-storage plant, or for the payment of cold-storage charge in Chicago?

Col. HANNAY. I will put a statement of that in the record.

(The statement referred to is as follows:)

The following estimate for funds required for the payment of cold-storage charges during the fiscal year 1922 is submitted:

New Orleans	\$15,441.45
Canal Zone.....	2,837.25
Porto Rico.....	2,837.25
Norfolk.....	1,251.23
Atlanta.....	3,319.58
Baltimore.....	3,040.40
Chicago.....	156,295.54
New York.....	68,163.80
Omaha.....	1,986.08
San Antonio.....	17,489.38
San Francisco.....	11,578.82
Honolulu.....	2,042.82
Philippines.....	56,745.00
St. Louis.....	4,987.32
Washington.....	1,986.08
Total.....	350,002.00

The amount asked for is \$350,002 and is covered by item 0514.145, appropriation, "Inland and Port storage and shipping facilities," fiscal year 1922. This amount is asked for to provide adequate cold storage for perishable subsistence stores for supply of the Army.

Cold-storage space is essential at all supply depots in order that supplies, such as dairy and meat products, prunes, evaporated peaches, and apples, fresh meats, fish, eggs, and other perishable articles of food for issue to troops be given proper protection. Such articles are retained in cold storage for temporary periods and are shipped out as a rule in carload lots to the posts, camps, and stations for issue to troops thereat. Since the quantities of such supplies in storage vary from time to time, it is much more economical to place these supplies in commercial storage plants than it would be to operate Government owned or controlled storage plants. Procurement of perishable food supplies is made locally by quartermasters at posts, camps, and stations where there are available local markets, but in many cases troops are not stationed near available markets, and in such cases and also where local prices are exorbitant purchases are made by the supply depots and shipments made to the troops as needed. General supply depots, Chicago and New York, purchase most of this class of articles required for the troops in Germany, Panama, and Porto Rico. San Francisco must retain sufficient supplies in cold storage for shipment by Government transport to Hawaii. Due to climatic conditions, more cold storage is needed in the South than in the North, and therefore it may be noted that the figures are much higher for the general supply depots at New Orleans and San Antonio than for any of the other depots with the exception of Chicago, New York, and San Francisco, at which places the necessity for cold storage is largely due to maintenance and preservation of perishable supplies for overseas troops. Where Government cold-storage facilities are available, they are used to the utmost.

This depot at Baltimore will be discontinued, and cold storage will not be required for depot purposes, but cold storage may be required for storage of meats and other perishable supplies for posts in vicinity of Baltimore.

Cold storage at New York depends upon supplying troops in Germany. If troops are withdrawn, cold storage will not be required at New York.

Funds for cold storage can not be definitely determined, as the amounts depend entirely upon conditions that may arise.

Mr. ANTHONY. It is obvious you are not going to use all of the sums you are asking for which make up this \$10,000,000. While it is true you are not asking for any appropriation and are going to use the money out of the funds on hand, yet is it not evident that the amount can be cut?

Col. HANNAY. I do not think it can be.

Mr. ANTHONY. We probably will not retain all of these troops we have in Europe during the next fiscal year, and there will be a saving in cold storage on that account, will there not?

Gen. ROGERS. If the troops in Europe are not maintained I think there can be cut for the cold storage in New York. But the cold storage we have to hire in San Francisco will have to be retained, and in fact will have to be increased, because the number of troops in Hawaii is being increased.

Mr. ANTHONY. Do you not contemplate that during the next fiscal year you will continue to dispose of the surplus quartermaster stores in large quantities, thus relieving a good deal of storage space?

Gen. ROGERS. We will have to hold certain classes of storage for what we call specification supplies, that we could not get anything for if we sold them. We will sell everything that it will be an advantage to the Government to sell.

Mr. ANTHONY. If this policy of maintaining six months' supplies for 75,000 troops in San Antonio should be changed there will be a material saving there, so it seems to me it is possible to make savings all through these items.

Gen. ROGERS. As Col. Hannay stated, it is not up to us to make any recommendations in regard to that.

Mr. ANTHONY. But if there is a limitation placed upon the amount somebody would have to reduce their figures.

Gen. LORD. There are four other bureaus of the War Department to be cared for out of this appropriation, the Medical Corps, the Ordnance Department, the Signal Corps, and the Corps of Engineers.

Col. HANNAY. It involves, furthermore, the handling of all utilities and personnel in connection with transportation.

Mr. ANTHONY. I presume there are a great many civilian employees paid for under this item?

Col. HANNAY. Yes, sir.

Mr. ANTHONY. The number will be given in your statement?

Col. HANNAY. Yes, sir; 5,042 civilian employees are included.

Mr. ANTHONY. And the amount?

Col. HANNAY. Yes, sir; the amount is \$6,662,623.

Mr. SLEMP. Are you estimating in these items for the National Guard, for the pay of the members of the National Guard, for their transportation, equipment, or subsistence, or anything of that kind, or do all of these estimates relate entirely to the Regular Army?

Gen. ROGERS. I think there are some items for the Reserve Corps.

Col. HANNAY. There is a provision for 50,000 enlisted men in the Reserve Corps but not for the National Guard.

Gen. ROGERS. That is the Reserve Corps of the Regular Army?

Col. HANNAY. Yes, sir.

Gen. ROGERS. Of course, anything pertaining to the National Guard, I think, comes under the Militia Bureau. As I remember it, these items only cover the Regular Army and 50,000 reserves of the Regular Army. I think we are permitted to put in estimates for certain items covering that.

Mr. SLEMP. Fifty thousand being the number of officers and enlisted men you are considering in connection with these estimates for the Reserve Corps?

Gen. ROGERS. Yes, sir.

Mr. ANTHONY. Col. Hannay, your original estimate called for \$307,700,000 for all of the activities of the Quartermaster Corps for the next fiscal year. What was the \$381,000,000?

Gen. ROGERS. I think that was the original estimate, as I remember it, \$381,204,133.

Mr. ANTHONY. What was that based upon?

Gen. ROGERS. That was based upon 299,012, and in addition to that, 1,600 nurses and 300 student nurses.

Mr. ANTHONY. Where do you get the total of \$301,700,000 in the book of estimates?

Gen. ROGERS. I had not seen that.

Mr. ANTHONY. The total appropriations last year were \$156,305,100. Can you give us the figures that will show what the total allocations have been for Quartermaster Corps' activities during the current year, Gen. Lord, and also what the total of all expenditures have been out of the total amount allocated?

Gen. LORD. I will have that inserted in the record.

Inland and port storage and shipping facilities.

Apportioned to Quartermaster General.....	\$13, 290, 175. 00
Allotted to Jan. 17, 1921.....	9. 211, 419. 30
Unallotted balance.....	4, 078, 755. 70

WEDNESDAY, JANUARY 5, 1921.

MEDICAL DEPARTMENT.

MEDICAL AND HOSPITAL DEPARTMENT.

STATEMENT OF MAJ. GEN. M. W. IRELAND, SURGEON GENERAL.

Gen. IRELAND. Mr. Chairman, Col. Wolf, who is here, has all the details in regard to our estimate, but I thought maybe you would like to have a very brief statement of the activities of the Medical Department during the year 1920.

Mr. ANTHONY. You may make such a preliminary statement, General.

GENERAL STATEMENT.

PATIENTS, HOSPITALS, AND BED CAPACITY.

Gen. IRELAND. I think it is fair to say that we are just about through with our war work. When the armistice was signed we had 192,000 patients in the hospitals in France and 70,000 patients in the hospitals here, a total of 260,000 patients. To-day we have 500 war patients in our hospitals. All the rest of these patients have received a maximum amount of improvement that they can obtain from treatment.

Mr. ANTHONY. What class of men are the 500 that still remain as a result of the war?

Gen. IRELAND. As a general thing, they are bone cases and empyemas, and those are cases that will remain a long time.

Mr. ANTHONY. What is empyema?

Gen. IRELAND. That is pus in the pleural cavity. It is a very chronic affair. The cure of these cases requires a serious operation and takes a long time. That is the great number of war cases that we have. I might say that I understand that of the thousands of cases we have discharged, between 20,000 and 22,000 are now in War Risk insurance hospitals receiving treatment.

Mr. ANTHONY. Are now?

Gen. IRELAND. Are now. At the beginning of 1920 we had 14,000 cases in our hospitals.

Mr. SLEMP. The fiscal year 1920?

Gen. IRELAND. The calendar year, January 1, 1920. And our bed capacity at that time amounted to 18,000 beds. At the end of the year we had 3,200 patients in the hospitals and our bed capacity had been reduced to 4,000 beds. During the calendar year 1920 we abandoned nine general hospitals, and we have to-day our peace number of general hospitals, greatly enlarged, by temporary buildings.

Mr. ANTHONY. What has become of the nine general hospitals that were abandoned.

Gen. IRELAND. They were all either transferred to the Public Health Service or offered to the Public Health Service, except those hospitals that were administered in military posts. These reverted of course back to the Army, places like Fort Sheridan and Fort McPherson.

Mr. ANTHONY. Were there any general hospitals that the Public Health Service did not need?

Gen. IRELAND. They did not take some of the hospitals that were not suitable.

Mr. ANTHONY. Have steps been taken to dispose of those?

Gen. IRELAND. I do not know, sir. That goes out of our hands once.

Mr. Sisson. What is the provision of law, General, under which you turned over these hospitals to the Health Service?

Gen. IRELAND. It is an act of Congress.

Mr. SLEMP. Did you state how many hospitals you still have?

Gen. IRELAND. Yes: we now have our peace time general hospitals, a hospital at Walter Reed, Fitzsimons Hospital at Denver, Landon General Hospital at Presidio, the Army and Navy General

Hospital at Hot Springs, and the base hospital at Fort Sam Houston used as a general hospital.

Mr. SLEMP. Is not there one at Chicago?

Gen. IRELAND. That has been abandoned, the one at Fort Sheridan.

Mr. SLEMP. We had a big row about a hospital last year.

Gen. IRELAND. That was the Speedway Hospital.

Mr. SLEMP. That does not come under your jurisdiction?

Gen. IRELAND. No, sir; we have troubles enough of our own.

Mr. SLEMP. You deal only with men in the Regular Army?

Gen. IRELAND. Yes, sir.

Mr. SLEMP. You have no relation with the National Guard in any way?

Gen. IRELAND. No, sir; only when they come into camp in the summer time we are obligated to take care of them.

Mr. ANTHONY. What has been done with the tubercular cases?

Gen. IRELAND. All of our tubercular cases are at the Fitzsimons General Hospital.

Mr. SLEMP. That is at Denver?

Gen. IRELAND. Yes, sir. We turned over—I have in mind three tubercular hospitals that we turned over to the Public Health Service during the year, one at Whipple Barracks, Ariz. That is one place where the department authorized the Public Health Service to take an Army post. Also one at Fort Bayard, N. Mex., which we have had for 22 years, and one at Oteen, N. C.

Mr. ANTHONY. Does the Public Health Service have the one at Fort Bayard?

Gen. IRELAND. Yes.

Mr. ANTHONY. What became of the patients?

Gen. IRELAND. They have been removed to Fitzsimons General Hospital.

Mr. ANTHONY. So Fort Bayard does not exist as an Army institution?

Gen. IRELAND. No; it is loaned to the Public Health Service.

Mr. ANTHONY. Temporarily? Do you want to get it back or will Fitzsimons Hospital answer their purposes?

Gen. IRELAND. So far as a hospital is concerned we have abandoned it.

Mr. SLEMP. Under what circumstances do you discharge a man from your hospital. Do you wait until he gets so that he can walk?

Gen. IRELAND. No, sir. When he has received all the benefits that he can receive from hospital care and treatment.

Mr. SLEMP. Then you send him back to the organization to which he belongs?

Gen. IRELAND. No, sir.

Mr. ANTHONY. When he is repaired or beyond repair you let him go?

Gen. IRELAND. Yes, sir. Take a tubercular case. He has been in the tuberculosis hospital for six months and has not gotten better, but has been at a standstill; he is a chronic tuberculosis case and will be discharged.

Mr. SLEMP. What becomes of him?

Gen. IRELAND. He is discharged and becomes a patient of the War Risk Insurance. A great many are still in the hospital where we discharged them.

Mr. SLEMP. There are 22,000 of them?

Gen. IRELAND. Between 20,000 and 22,000 of them. Those cases are now in the War Risk Insurance.

Mr. ANTHONY. Of all classes?

Gen. IRELAND. Of all classes.

Mr. SLEMP. You say then that the hospital hangover from the war altogether would be about 25,000 the 3,000 that you had on hand on the 1st of January, 1921, plus the 22,000?

Gen. IRELAND. I understand, sir, that the estimate of the War Risk Insurance is that the peak of their load will be between 30,000 and 35,000 men. I am not responsible for the estimate, but I understand that that is it.

Mr. SLEMP. They will get a lot of men that do not come through you?

Gen. IRELAND. A lot of men who have been discharged and been disabled within a certain time are entitled to treatment. All of these men disabled during the war under certain circumstances are entitled to the war-risk insurance, and I understand that their estimate is that it will not exceed 35,000.

Mr. ANTHONY. These men are now in the Public Health Service hospitals?

Gen. IRELAND. Yes.

Mr. ANTHONY. Under the supervision of the War Risk?

Gen. IRELAND. Yes.

Mr. SLEMP. You have yours down to 3,000?

Gen. IRELAND. Yes; they are the usual sick of the Army.

Mr. SLEMP. How does that compare with, say, 1914?

Gen. IRELAND. I was just going to show that. Before I do that, may I ask that you keep in mind the general hospitals that we are running.

Mr. SLEMP. Those five?

Gen. IRELAND. So that when complaints are made with regard to the administration of hospitals you will know whether we are to blame or whether it belongs to the War Risk Insurance hospitals.

The health of the Army during 1920 has been very good, and if it had not been for the chronic cases that we had from the war, it would have approximated the constant of noneffective rate of six years ago.

Mr. ANTHONY. What is the total of cases under treatment in the Army now?

Gen. IRELAND. Thirty-two hundred.

Mr. ANTHONY. How many hangovers from the war?

Gen. IRELAND. Five hundred. If nothing unforeseen happens we will this year get back to our prewar rates.

Mr. ANTHONY. Does that number include the men under treatment at post hospitals?

Gen. IRELAND. No, sir; that is such a variable amount. These are cases under treatment in the general hospitals.

Mr. ANTHONY. Take a chronic case that develops at a post hospital.

Gen. IRELAND. He is transferred to the general hospital.

Mr. ANTHONY. Those post hospitals are filled with casuals?

Gen. IRELAND. Yes; temporary cases.

We have been very successful this year, remarkably successful in handling our venereal diseases. As you know the Army has been

making a great campaign against venereal diseases for eight or ten years, and we have never been able to get below 70 or 80 or 90 per thousand during the year. We are not able to say exactly what it will be for 1920, but it is going to approximate only 50 to a thousand.

Mr. ANTHONY. Is that due to preventive measures?

Gen. IRELAND. There has been a very vigorous campaign that has been conducted throughout the Army with the approval and support of the War Department against these diseases, and for the first time I think the company commander has been made to understand more than heretofore that he is really responsible for the physical condition of his men.

Mr. ANTHONY. You think you are succeeding in raising the moral tone?

Gen. IRELAND. I think the company commander has done more in the last year—the company commander is the officer that comes in contact with his men and has more influence than anybody else.

Mr. ANTHONY. What is the highest percentage you ever encountered in the Army, of venereal diseases, the Regular Army?

Gen. IRELAND. In 1912, when I went to Fort McKinley, Philippine Islands, the rate there was 336 for the year before.

Mr. ANTHONY. Per thousand men?

Gen. IRELAND. Yes. That meant that during the year out of every thousand men 336 men came down with venereal diseases. Now there are isolated cases where the rate has been higher than that. The rate for the Army was never that high, but this was just one post in the Philippine Islands.

The last half of 1920 has been a rather trying one for the medical officers of the Army. Something like 20,000 officers have been examined for admission to the Regular Establishment. It has been a very large task. In addition to that the medical officers have examined many hundreds of officers for discharge from service.

The invaluable statistical data that accumulates from a war is being gotten together.

The defects of the drafted men were published during 1920 and the Surgeon General's report for this year contains an enormous amount of valuable data for the Army and for the public.

Mr. ANTHONY. General, do you have arbitrary tests of blood pressure and heart action that you apply to applicants for commissions in the Army?

Gen. IRELAND. It is not an arbitrary test of blood pressure. Blood pressure is a variable quantity according to a man's age. There are certain heights of blood pressure which can always be called pathological. A man with a blood pressure of 150 and 160, 40 years old, should be investigated before he is passed for service.

Mr. ANTHONY. It is simply a danger signal.

Gen. IRELAND. It is simply a danger signal. The blood pressure of a man 21 years old in health should be about 120, and as we get older our arteries get harder and it is more difficult for the heart to produce circulation, and our blood pressure gradually goes up.

Mr. ANTHONY. Which is the most dangerous to a man, high or low blood pressure?

Gen. IRELAND. It is a very difficult thing to answer. You have got to ascertain the conditions for low pressure. A blood pressure of 200 is going to wear out your arteries sooner or later. It is the

same as standing on the end of a hose and forcing the water through a small hole instead of the large opening. It is simply a matter of mechanics. A man with a 200 blood pressure is sooner or later going to play out. A man must have a certain amount of blood pressure to keep up his circulation, and a neurasthenic or man with debilitating disease as a general thing runs a low blood pressure. But as a general thing a man with a high blood pressure is under a certain danger.

Mr. Sisson. How about 220, Doctor?

Gen. IRELAND. I hope that is not the blood pressure of any gentleman here, because it is going to wear him out sooner or later.

Mr. SLEMP. General, you are running along there and getting away from those war activities and the record of selective draft, etc. Is not that pretty well complete now?

Gen. IRELAND. Yes, sir.

Mr. SLEMP. Does your office force make examinations for enlisted men for the Army?

Gen. IRELAND. The medical officers.

Mr. SLEMP. That is your organization?

Gen. IRELAND. That is part of it.

Mr. SLEMP. That is included in your estimate?

Gen. IRELAND. Yes, sir.

Mr. SLEMP. That is done by medical officers?

Gen. IRELAND. Throughout the country.

Mr. SLEMP. And by civilians also?

Gen. IRELAND. Comparatively few are made by civilian doctors.

Mr. SLEMP. Is there any estimate for civilian doctors in this estimate?

Gen. IRELAND. It is included in the estimate for medical and hospital appropriations. That can be paid out of it. That can be paid for out of medical and hospital appropriations; yes, sir.

Mr. SLEMP. To what extent do you supplement the medical force that you have —

Gen. IRELAND. That is the next paragraph.

At the beginning of 1920 we had 3,200 officers in the Medical Department. On December 31 we had 1,770 officers in the Medical Department, a reduction of 44½ per cent. There was also a reduction of 35 per cent in the enlisted strength of the Medical Department and of 52 per cent in the Nurse Corps. To-day all the work in the Medical Department is done by the Regular Establishment with the exception of 50 officers, medical officers of the Reserve Corps, reserve officers of the Dental Corps, and 12 officers of the veterinary service.

Mr. SLEMP. Now General, was this loss of officers due to a desire of the War Department to dispense with their services, or due to the fact that the pay in the Army is such that you lose them?

Gen. IRELAND. It is an act of Congress that said all temporary officers must be discharged by the 31st of December, and an effort was made to get along with the minimum number of officers. We have notified the War Department that so far as the Medical Department is concerned we are on the absolute minimum for the Army just as it is located now.

Mr. SLEMP. For an army of how many men?

Gen. IRELAND. As it is now, 200,000 men. I think there are 210,000 enlisted men now. But if anything happens out of the ordinary we will have to have help from the Reserve Corps. We have made an effort to get along with the regular officers that we have.

Mr. SLEMP. You were speaking a while ago of having the number of men down to what you called a normal peace basis.

Gen. IRELAND. Yes, sir.

Mr. SLEMP. If you will compare your estimate now with say what it was in 1912, you had an appropriation in 1912 of \$700,000. Your present estimate is \$5,600,000, the amount of money proposed for the same service. In 1912 you got \$700,000, in 1913 the same, in 1914 the same, 1915 the same, 1916, \$750,000 —

Gen. IRELAND. Col. Wolfe has the details in regard to the expenditures and what we expect to do with the money if it is allowed us.

Mr. SLEMP. That is a growth of 700 per cent, when the number of men in the hospitals is down to a peace time basis.

Gen. IRELAND. I would like to say, however, that it is only proper that you remember that in the administration of hospitals the amount that we do for patients in the hospitals has enormously increased over what it was in 1912. The physiotherapy and curative work that we are doing in our hospitals has come to stay.

Mr. SLEMP. You give more close attention?

Gen. IRELAND. We give more close attention. We are taking altogether different care of our psychiatric cases than we did. In 1912 if a man came in insane, if it was an incident of the service, he was immediately sent to St. Elizabeths. If it was not, under the orders of the War Department, he was taken to his home and discharged at once. We now keep all the patients at least four months, trying to restore them to a normal condition before discharging them from the Army. While they are being kept in our hospitals they are given physiotherapy and educational work all the time. This is a result of the war. It has come to stay; and the same thing pertains to all the patients that are in the hospitals. The time is past when a man comes in and is operated on, and they let him lie in bed or loaf around the ward, and then go back to his company. The moment it is possible to do so, he is given some occupation; put to work to keep him occupied and to get him well. All of this requires additional personnel; but it is something that has come to stay in our hospitals, and I am sure that everybody is glad that we are doing more for these patients.

Mr. SLEMP. Is this estimate that you have given here based on 3,200 men in the hospitals under normal conditions.

Gen. IRELAND. That estimate is based on the 300,000 officers and men. Col. Wolfe has all the data, and what it will be if the Army is 275,000 or 250,000 or 225,000. He has all that data.

STATEMENT OF COL. EDWIN P. WOLFE, IN CHARGE OF THE FINANCE AND SUPPLY DIVISION, SURGEON GENERAL'S OFFICE.

OBJECT OF APPROPRIATION.

Mr. ANTHONY. Colonel, will you tell us something in regard to the items of which this general appropriation for the Medical Corps is composed?

Col. WOLFE. As it is put in the bill itself it is rather diverse; we have attempted to make it concrete, and we have grouped it under different headings—drugs, chemicals, and reagents. I might say that it is divided into two divisions, supplies and services, as we deal largely with both. The supplies are all those which are required in the hospitals, speaking in broad terms, for the care and treatment of the sick, other than subsistence and heating and lighting.

Mr. ANTHONY. There is nothing in this item for subsistence?

Col. WOLFE. No, sir.

Mr. ANTHONY. That is taken care of out of the general appropriation?

Col. WOLFE. Yes, sir.

Mr. ANTHONY. The \$5,600,000 which you are asking for the next fiscal year shows an increase of \$2,100,000 over the appropriation for the current year?

Col. WOLFE. Yes, sir.

Mr. ANTHONY. What are the reasons for the increase?

Col. WOLFE. I will say, first, that our estimate is based on an Army of 300,000 men; that is to say, 280,000 enlisted men and 17,000 officers, because we find it is as much trouble to take care of an officer as an enlisted man, so that we can not base the estimate on the materials required for the treatment of the enlisted force alone; we have to take into account the officers. I think when you compare the two, in view of the fact that the appropriation for the fiscal year 1921 is based on an Army of 175,000 and this one is based on an Army of 300,000, that the disparity is not so great. In fact it is in favor of these estimates. At the same rate as for the 175,000 the estimate for 300,000 would be \$6,000,000. Another factor which enters into this estimate is that the pay of depot personnel, the employees at our various medical supply depots, for the fiscal year 1921 was paid from the appropriation inland and port storage, a quartermaster's appropriation, but now the pay of those employees has been included in this item, and the total estimate for that is a little under \$500,000.

Mr. ANTHONY. The pay of what employees did you say?

Col. WOLFE. The personnel in the various supply depots engaged in receiving, storing, and issuing supplies pertaining to the Medical Department and purchased out of this appropriation for the current and preceding fiscal years, and that personnel is made up of civil employees, except the officers in charge.

Mr. ANTHONY. Are the officers medical officers?

Col. WOLFE. Yes, sir. Officers of the Medical Department.

CIVILIAN PERSONNEL.

(See p. 956.)

Mr. ANTHONY. How many civil employees are in charge of the medical stores? They are all medical stores, are they?

Col. WOLFE. Yes, sir. I will insert that information in the record.

Civilian employees.

MEDICAL SUPPLY DEPOTS.

	Rate.	Number.	Total.
Salaries:			
Checkers.....	\$1,500.00-\$1,800.00	18	\$22,500.00
Chemist.....	1,800.00	2	3,600.00
Clerks.....	2,400.00-1,000.00	116	186,800.00
Inspector.....	1,400.00	1	1,400.00
Inspector, medical supplies.....	1,800.00	2	3,600.00
Stock keeper, medical.....	1,400.00	1	1,400.00
Storekeeper.....	1,000.00-1,200.00	4	5,200.00
Superintendent of laboratory supplies.....	1,800.00-1,200.00	2	4,500.00
Checkers, elevator conductor, watchmen.....	900.00-840.00	26	21,880.00
Total.....		177	212,179.00
Wages:			
Carpenters.....	1,600.00-1,000.00	9	10,573.80
Coopers.....	1,200.00	2	2,400.00
Engineers.....	1,400.00	1	1,400.00
Laboratory superintendent.....	1,600.00	1	1,600.00
Foreman-laborer.....	1,330.25-1,000.00	13	18,068.50
Laborers.....	1,126.80-1,277.04	66	74,519.04
Markers.....	1,173.75	1	1,173.75
Packers, chief.....	1,408.50-1,200.00	7	9,408.50
Packers.....	1,500.00-1,000.00	34	38,543.60
Superintendent, warehouse.....	1,200.00	2	2,400.00
Warehousemen.....	1,680.00-1,200.00	8	10,880.00
Warehouse foreman.....	1,800.00-1,100.00	2	2,900.00
X-ray machinist.....	1,800.00	1	1,800.00
Carpenters, laborers, packers, porters.....	906.00-240.00	161	127,089.50
Total.....		308	300,756.79
Aggregate.....			512,935.79

CAMP SUPPLY DEPOTS.

Salaries:			
Clerks.....	\$1,500.00-\$1,000.00	14	\$17,890.00
Checkers.....	1,620.00-1,380.00	2	3,000.00
Storekeepers.....	1,680.00-1,380.00	4	6,180.00
Total.....			27,060.00
Wages:			
Laborers.....	1,265.00-900.00	8	9,720.00
Aggregate.....			36,780.00

MEDICAL SUPPLIES.

SUPPLIES LEFT OVER FROM WAR.

Mr. ANTHONY. Has the Medical Department a large amount of stores remaining over from the war?

Col. WOLFE. It has quite a large quantity; yes, sir.

Mr. ANTHONY. How large a quantity?

Col. WOLFE. I could not give you an estimate because at the present time the records are not sufficiently accurate to give it to you.

Mr. ANTHONY. You have accumulated quite a large stock of medical material that it is valuable to hold in reserve?

Col. WOLFE. We are carrying in reserve, under instructions from the War Department, an initial equipment and six months' maintenance for an Army of 1,000,000 men; besides that we have our own maintenance for the force on hand for approximately six months.

Mr. ANTHONY. Have you an approximate idea of the total amount of medical supplies?

Col. WOLFE. In money value?

Mr. ANTHONY. Yes.

Col. WOLFE. No, sir; I have not.

Mr. ANTHONY. Is there any way by which we could get it in the record?

Col. WOLFE. I am afraid I could not get it accurately before action on the bill, because it will depend on the tabulation of the inventories which are now coming in.

Mr. ANTHONY. How large an appropriation are you asking for the purchase of medical supplies?

ESTIMATE FOR MEDICAL SUPPLIES.

Col. WOLFE. The amounts originally calculated have been materially reduced and I do not happen to have the addition for that particular section of the column, but it is, roughly speaking, \$2,500,000.

NOTE.—I find on checking up the different items that the estimate for supplies alone is \$3,258,651.25.

Mr. ANTHONY. Then about half the appropriation is for the purchase of materials and supplies?

Col. WOLFE. Yes, sir.

Mr. ANTHONY. Of the drugs, chemicals, and things of that kind which the Medical Department buys, did you not keep over from the accumulation during the war a pretty large reserve?

Col. WOLFE. As I stated, we have set aside a reserve—of non-perishable articles—of six months' maintenance for the Army as it is and six months' maintenance for a million in reserve; in excess of that the material has been declared surplus and either has been sold or is in process of sale.

Mr. ANTHONY. Is that a larger reserve than we have ever carried before?

Col. WOLFE. In the equipment of the Army before the war we had a reserve for 250,000, but we never got up to the reserve that was authorized or recommended by the Dodge Commission, because of lack of funds.

Mr. ANTHONY. The amount of money you are asking for the purchase of medical supplies is for materials that you do not have in storage?

Col. WOLFE. Yes, sir; that is, it is contemplated they will be out of storage or exhausted during the year 1922.

Mr. ANTHONY. If we based our appropriations on an Army one-half the size of the Army on which you made your estimates, we would be safe in cutting the appropriation in two, so far as the amount which is to be devoted to the purchase of new supplies is concerned.

Col. WOLFE. I should be glad to submit to you our estimates for armies of different strengths, if you care to have it in the hearing. I think that a copy of my letter to the Chief of Finance of November 27, 1920, will give the desired information. It appears below.

NOVEMBER 27, 1921

From: The Surgeon General, United States Army.

To: The Chief of Finance.

Subject: Estimate data, bill for support of the Army, fiscal year 1922.

1. In compliance with letter of instructions from The Adjutant General, dated November 20, 1920, on the above-mentioned subject, the following is submitted:

(a) Amount for cleaning up war work:

From the present outlook and rate of discharge of patients remaining from the war, it is probable that there will still be approximately 200 such patients in military hospitals on July 1, 1921. While it seems probable that they will have been discharged by Dec. 31, 1921, there is no assurance that some of them may not continue until the end of the year. The extra expense for them for laundry, medical supplies, and special services will be approximately.....

\$25,000.00**(b) Amount for quasi-military work:**

1. For medical, surgical, and hospital supplies for 15,000 Reserve Officers' Training Corps students in camp for six weeks.....	15,000.00
2. For physical examination of applicants for enrollment in Reserve Officers' Training Corps units where officers of the Medical Corps are not available.....	10,000.00
3. For veterinary medicines and attendance for 2,800 public animals at institutions where Reserve Officers' Training Corps units are maintained.....	14,000.00
4. For medical, surgical and hospital supplies for 50,000 reservists in camp for one month.....	33,340.00

Total, quasi military.....	<u>72,340.00</u>
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(c) Amount for constant or nonvariable components of normal military requirements of the Regular Establishment:**1. Supplies—**

(1) Drugs, chemicals, and reagents.....	146,598.10
(2) Surgical dressings.....	50,622.33
(3) Surgical instruments.....	20,087.04
(4) Laboratory supplies.....	66,513.81
(5) Dental supplies.....	44,685.05
(6) X-ray supplies.....	75,176.23
(7) Veterinary supplies.....	12,104.88
(8) Hospital furniture and equipment.....	434,898.40
(9) Miscellaneous hospital supplies.....	54,194.65
(10) Field equipment.....	51,656.19
(11) Stationery and office supplies.....	30,259.25
(12) Items impossible to estimate.....	123,840.76

Total for supplies.....	<u>1,110,636.69</u>
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2. Services—

(1) Civilian employees at general hospitals.....	361,160.91
(2) Civilian employees at corps area surgeons' offices, other posts and stations.....	194,268.40
(3) Civilian employees at medical supply depots.....	432,732.00

Total for services.....	<u>988,161.31</u>
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3. Miscellaneous items—

(1) Civilian, medical, dental, veterinary, nursing, and hospital attendance and medicines on prescription.....	103,000.00
(2) Prosthetic appliances (spectacles, artificial dentures, special splints, etc.)	17,068.00
(3) Books, journals, and reprints.....	59,144.00

(c) Amount for constant or nonvariable components of normal military requirements of the Regular Establishment—Continued.

3. Miscellaneous items—Continued.

(4) Printing and binding.....	\$15,000.00
(5) Biological, including preparation of bacterial vaccines at Army Medical School.....	100,000.00
(6) Tuition for officers of the Medical Corps and members of the Army Nurse Corps.....	19,500.00
(7) Laundering hospital linen.....	380,150.00
(8) Gas and electricity for laboratories.....	5,000.00
(9) Expressage on Medical Department supplies.....	5,000.00
Total for miscellaneous items.....	703,862.00

Total constant..... 2,802,660.00

(d) Amount for variable components pertaining to the regular military establishment:

Experiences for the past 2 years in the cost of services and supplies consumed and a consideration of the probable state of the money market for the fiscal year 1922 indicate that the variant for the Medical Department will be \$9 per man for the total of the commissioned and enlisted force, whatever may be the strength of the Army. The total requirements of the Medical Department will therefore be the sum of (a) cleaning up war work, (b) quasi military work, (c) the constant, and (d) the variation (in dollars nine times the actual strength of the Army—

For 100,000—

(a).....	25,000.00
(b).....	72,340.00
(c).....	2,802,660.00
(d).....	900,000.00
	3,800,000.00

For 150,000—

(a).....	25,000.00
(b).....	72,340.00
(c).....	2,802,660.00
(d).....	1,350,000.00
	4,250,000.00

For 200,000—

(a).....	25,000.00
(b).....	72,340.00
(c).....	2,802,660.00
(d).....	1,800,000.00
	4,700,000.00

For 250,000—

(a).....	25,000.00
(b).....	72,340.00
(c).....	2,802,660.00
(d).....	2,350,000.00
	5,250,000.00

For 300,000—

(a).....	25,000.00
(b).....	72,340.00
(c).....	2,802,660.00
(d).....	2,700,000.00
	5,600,000.00

For the Surgeon General:

EDWIN P. WOLFE,
Colonel, Medical Corps

REDUCTION IN TOTAL ESTIMATE.

Mr. ANTHONY. Gen. Lord, did you make any estimate as to how much we could reduce the medical appropriation on an Army of 175,000?

Gen. LORD. Yes; to the extent that he reported variables in his estimates; the total reduction in this particular appropriation, medical and hospital department, would be \$1,012,500, on the basis of the amount that he reported as variable.

Mr. ANTHONY. Did you expend during the current year all of the appropriation of \$3,500,000?

Col. WOLFE. No; we have spent approximately one-half of it.

Mr. ANTHONY. Are you going to spend the rest of it?

Col. WOLFE. I do not think we will be able to get through on that alone; we have some money in a special fund which will supplement this, and it is always possible to make it do if necessary.

Mr. ANTHONY. If you do not get the full amount of this appropriation you mean you will resort to the reserve you speak of for an Army of 1,000,000 men?

Col. WOLFE. In part, and in part it will be necessary to reduce some of the activities at the hospitals, of which the Surgeon General spoke this morning.

STORAGE OF SUPPLIES.

CIVILIAN PERSONNEL.

Mr. ANTHONY. Getting back to the number of civilian employees required in these storehouses, has the Medical Department heretofore had charge of storing its own supplies?

Col. WOLFE. From about the year 1818 down to November 15, 1918, it had.

Mr. ANTHONY. One hundred and one years?

Col. WOLFE. Yes. Then by the consolidation of the supply services it lost charge of them, but control has been returned to it within the last month and a half.

Mr. ANTHONY. Consequently you must estimate here for the pay of these civilian employees?

Col. WOLFE. Yes. I may say to you that the pay roll of the depots as they are now, including those employees at the camps and the smaller depots, is something over \$600,000; we have estimated \$480,000 for next year, but I hope to reduce it below that.

STORAGE DEPOTS.

Mr. ANTHONY. How many principal storage depots have you?

Col. WOLFE. Seven in the United States.

Mr. ANTHONY. Can you state where they are located?

Col. WOLFE. New York City, Chicago, Washington, Atlanta, St. Louis, San Antonio, and San Francisco.

Mr. ANTHONY. Are these storage depots in property owned by the Government or are they leased?

Col. WOLFE. The New York, Chicago, San Francisco, and San Antonio depots are in Government-owned warehouses; the Wash-

ington depot, the Atlanta depot, and the St. Louis depot are in leased storage.

VALUE OF SUPPLIES.

Mr. ANTHONY. What is the value, in money, of the supplies that are stored by the Medical Department?

Col. WOLFE. In all the warehouses?

Mr. ANTHONY. Yes.

Col. WOLFE. Including the reserve?

Mr. ANTHONY. Yes; including that which you are holding for a six months' supply of the Regular Establishment and that for a six months' supply of a million men.

Col. WOLFE. I should say something like \$25,000,000. It may be more than that, and it may be less. I can only give it as an estimate.

Mr. ANTHONY. You may put a statement in the record covering the appropriation of \$5,600,000 you are asking for.

Col. WOLFE. Yes, sir.

Mr. ANTHONY. And also state to what sum you can reduce that for a Regular Army based on 150,000 men.

Col. WOLFE. Do you desire to have the civilian employees listed - not by name, but by classification?

Mr. ANTHONY. Yes; you can classify them, showing the number.

Col. WOLFE. And the different grades?

Mr. ANTHONY. Yes.

Col. WOLFE. I will supply that.

(See exhibit attached below:)

MEDICAL AND HOSPITAL DEPARTMENT, FISCAL YEAR 1922.

Based on an army of 299,000 officers and enlisted men.

Drugs, chemicals, and reagents.....	\$436,504
Surgical dressings.....	152,992
Surgical instruments.....	72,250
Laboratory.....	191,550
Dental.....	135,092
X-ray.....	209,307
Veterinary.....	36,655
Hospital furniture and equipment.....	1,245,993
Miscellaneous hospital supplies.....	166,100
Field equipment.....	90,644
Stationery and office furniture and equipment.....	87,146
Items impossible to estimate.....	375,061
Orthopedic and prosthetic appliances (spectacles, artificial dentures, special splints, apparatus for resection, etc.).....	17,068
Biologicals, including materials for preparation of bacterial vaccines at Army Medical School, laboratory animals and feed therefor.....	125,000
Books, journals, and reprints, including the issue of Army Medical Bulletins and Supplements.....	59,144
Total, supplies.....	<u><u>3,401,222</u></u>
Civilian employees:	
(a) At general and station hospitals, corps surgeons' offices, attending surgeons' offices, etc.....	742,857
(b) Medical supply depots.....	480,720
Laundry.....	755,300
Civilian medical attendance, including dental and veterinary, nursing and medicines on prescription.....	108,000
Printing and binding.....	15,000

For the cost of tuition, matriculation and laboratory fees for 48 officers of the Medical Department and 30 members of the Army Nurse Corps, to be detailed as students at technical, professional, or other educational institutions, or as students, observers, or investigators at industrial plants, hospitals, and other places. Under provisions of section 127A, Army reorganization act of June 4, 1920.....	\$19,500.00
Gas and electricity for laboratories.....	5,000.00
Expressage on Medical Department supplies.....	5,000.00
Total, services.....	2,126,437.50
Grand total.....	5,527,660.00

Cleaning up war work.....

Quasi-military work:

1. For medical, surgical and hospital supplies for 15,000 R. O. T. C. students in camp for six weeks.....	15,000.00
2. For physical examination of applicants for enrollment in R. O. T. C. units where members of the Army Medical Corps are not available.....	10,000.00
3. For veterinary medicines and attendance for 2,800 public animals at various institutions where R. O. T. C. units are maintained.....	14,000.00
4. For medical, surgical, and hospital supplies for 50,000 reservists in camp for one month.....	33,340.00

Total..... 72,340.00

Aggregate..... 5,600,000.00

Inasmuch as the accounts for medical attendance, etc., at R. O. T. C. units will be handled by the Medical Department it seems appropriate that the moneys for that purpose should be provided in this appropriation.

Civilian employees based on the requirement of an Army of 299,000 officers and men at general and station hospitals, corps surgeons' offices, attending surgeons' offices, etc.

Salaries.	Per annum.	Estimated 1922.	Expended 1920.
Bacteriologist.....	\$1,800.00	1	.....
Bookkeeper.....	1,700.00	1	.....
Chemist.....	2,100.00	1	.....
Do.....	1,600.00	1	.....
Do.....	1,200.00	1	.....
Clerks.....	2,000.00	5	.....
Do.....	1,800.00	5	.....
Do.....	1,600.00	7	.....
Do.....	1,500.00	2	.....
Do.....	1,400.00	8	.....
Do.....	1,300.00	12	.....
Do.....	1,280.00	1	.....
Do.....	1,200.00	61	.....
Do.....	1,100.00	9	.....
Do.....	1,000.00	13	.....
Dental hygienists.....	1,400.00	6	.....
INSTRUCTOR CURATIVE.			
Instructor, workshop.....	3,000.00	1	.....
Do.....	2,700.00	1	.....
Do.....	2,500.00	2	.....
Do.....	2,400.00	1	.....
Do.....	2,100.00	1	.....
Do.....	1,800.00	2	.....
Do.....	1,680.00	2	.....
Do.....	1,560.00	1	.....
Reconstruction aid (supervisor).....	1,800.00	1	.....
Sanitary inspector.....	2,600.00	1	.....
Attendants, caretakers, clerks, dietitians, hospital internes, janitors, housekeepers, maids, messengers, student nurses, reconstruction aids, watchmen, laboratory technicians, charwomen.	180.00-900.00	728	.....
Total.....	432,040.00	875	.....

Civilian employees based on the requirement of an Army of 299,000 officers and men at general and station hospitals, corps surgeons' offices, attending surgeons' offices, etc.—
Continued.

Salaries.	Per annum.	Estimated 1922.	Expended 1920.
WAGES.			
Butcher.....	\$1,500.00	1	.....
Carpenter.....	1,400.00	1	.....
Cooks.....	1,800.00	4	.....
Do.....	1,500.00	15	.....
Do.....	1,200.00	1	.....
Do.....	1,140.00	10	.....
Do.....	1,080.00	4	.....
Dental mechanics.....	2,080.00	1	.....
Do.....	1,800.00	2	.....
Laundry operatives.....	2,400.00	1	.....
Do.....	1,800.00	2	.....
Do.....	1,500.00	1	.....
Do.....	1,380.00	1	.....
Do.....	1,200.00	3	.....
Do.....	1,140.00	1	.....
Do.....	1,080.00	8	.....
Do.....	1,020.00	8	.....
Mechanic.....	1,600.00	1	.....
Do.....	1,200.00	1	.....
Mess stewardess.....	1,680.00	1	.....
Operative (Hollereith machine).....	1,300.00	1	.....
Do.....	1,200.00	1	.....
Plumber.....	1,400.00	1	.....
Assistant cooks, dishwashers, elevator conductors, kitchen help- ers, laborers, laundry operatives, meat cutters, mess boys, mosquito catchers, painters, sanitary laborers, scrub women, scullery maids, scullery men, seamstresses, waiters, and waitresses.....	198.00-960.00	349	.....
Total.....	810,817.50	417	.....
Total salaries and wages.....	742,857.50	1,202	\$2,881,325.64

. MEDICAL SUPPLY DEPOTS.

SALARIES.			
Checkers.....	\$1,200.00	5	.....
Do.....	1,100.00	2	.....
Do.....	1,000.00	2	.....
Chemists.....	1,800.00	2	.....
Clerks.....	2,000.00	3	.....
Do.....	1,800.00	3	.....
Do.....	1,600.00	8	.....
Do.....	1,400.00	12	.....
Do.....	1,200.00	40	.....
Do.....	1,000.00	60	.....
Laboratory technician.....	1,800.00	1	.....
Do.....	1,000.00	1	.....
Messengers and chauffeurs.....	1,000.00	4	.....
Storekeeper, chief.....	1,800.00	1	.....
Storekeeper's assistant.....	1,600.00	1	.....
Do.....	1,400.00	1	.....
Do.....	1,200.00	1	.....
Do.....	1,000.00	1	.....
Watchmen.....	1,000.00	6	.....
Charwomen, checkers, messengers, storekeepers' assistants, and watchmen.....	600.00-900.00	25	.....
Total.....	211,810.00	189	.....
WAGES.			
Carpenters.....	1,500.00	1	.....
Do.....	1,400.00	3	.....
Do.....	1,200.00	2	.....
Do.....	1,100.00	1	.....
Cooper.....	1,000.00	2	.....
Engineers.....	1,400.00	3	.....
Firemen.....	1,000.00	4	.....
Foremen.....	1,200.00	4	.....
Laborers, skilled.....	1,600.00	1	.....
Do.....	1,400.00	1	.....
Do.....	1,200.00	4	.....
Laborers, unskilled.....	1,000.00	46	.....

Civilian employees based on the requirement of an Army of 299,000 officers and men at general and station hospitals, corps surgeons' offices, attending surgeons' offices, etc.—Continued.

MEDICAL SUPPLY DEPOTS—Continued.

Salaries.	Per annum.	Estimated 1922.	Expended 1920.
WAGES—continued.			
Packers.....	\$1,600	3	.....
Do.....	1,400	5	.....
Do.....	1,200	2	.....
Do.....	1,000	17	.....
Warehousemen.....	1,400	1	.....
Elevator conductors, laborers, unskilled, packers, repairer.....	270-960	184	.....
Total.....	268,970.00	238	.....
Total salaries and wages.....	480,780.00	472	.....
Aggregate salaries.....	648,850.00	.....	.....
Aggregate wages.....	879,787.50	.....	.....
Grand total.....	1,228,637.50	.....	.....

After mature consideration of the present type of enlisted man of the Medical Department and the personnel requirements of general hospitals, station hospitals, chief surgeons' offices, attending surgeons' offices, and general, reserve, and camp supply depots, I am convinced that the total number of employees and the amount estimated for their pay as given in the foregoing tables could not be reduced more than 15 per cent if the strength of the Army were reduced to 150,000 instead of the 299,000 on which these figures are based.

ENLISTED PERSONNEL.

Mr. ANTHONY. How many enlisted men are there in the Medical Corps at this time?

Col. WOLFE. The last report I saw showed between 12,000 and 12,500.

Mr. ANTHONY. What is the maximum number authorized?

Col. WOLFE. Five per cent of the strength of the Army.

Mr. ANTHONY. So you are nearly up to the maximum?

Col. WOLFE. Yes, sir; on that.

DUTIES.

Mr. ANTHONY. What are the duties of the enlisted medical strength of the Army?

Col. WOLFE. In general, they comprise the policing of the hospitals, the care of the grounds, care of the sick, and care of the equipment.

Mr. ANTHONY. Does that keep 13,000 men fully occupied?

Col. WOLFE. Yes, sir.

Mr. ANTHONY. Why could not some of these men be used to guard the storage of your surplus? Is it because of the fact that they are located in cities?

Col. WOLFE. It has not been the policy of the War Department in time of peace to assign enlisted personnel to that duty.

Mr. ANTHONY. In how large bodies is the enlisted strength of the Medical Corps stationed?

Col. WOLFE. In small groups, varying from 4, I should say, up to 500, the larger numbers being at the big general hospitals. In each organized division there are certain numbers, or each regiment is

entitled to a certain enlisted personnel strength of the Medical Department in field hospitals and ambulance companies, which are organized as units and operate as units, and they are in training for service in war just as an Infantry company is in training for service in war. They are not available for other duties.

ACTIVITIES.

- Broadly, the Medical Department has two parallel but analogous lines of activity
- (a) One dealing with the human element of the military establishment and embracing an efficient medical, dental, and nursing service.
 - (b) One dealing with the animal element of the military establishment and embracing an efficient veterinary service.

Short of certain refinements not quite applicable to the veterinary service as compared with the requirements of the human service it can be said that the duties of the Medical Department enlisted men in these two fields of endeavor are similar. These duties may be classified as follows:

- (1) Administrative, particularly including the preparation and preservation of individual records of sickness and injury, in order that claims may be adjudicated with justice to the Government and to the individual, and also that all the agencies provided the Medical Department to discharge its functions may be properly administered. Enlisted men assist officers in conducting physical examinations, another very important function of the Medical Department.
- (2) Hospitalization and evacuation of the sick and wounded, including not only their care in time of peace but also in war—on the march, in camp, on the battle field, and after removal therefrom.
- (3) Execution of sanitary measures to insure the health of the troops and attached civilians, in peace or war, and in war, in addition, the application of all measures of public health among the inhabitants of occupied territory.
- (4) Procurement, storage, and distribution of the supply of sanitary material necessary for the health of the troops and for the care of sick and wounded.
- (5) Training to the extent that they may be ready to accompany the fighting forces in the field, in any emergency, and promptly fulfill the above-mentioned duties also to provide the irreducible cadre necessary properly to train the reserve force when they are called to the colors for such training as is or may be prescribed by law

The act of March 1, 1887 (24 Stats., 435), creating for the first time an enlisted force for the Medical Department, prescribed that the men should perform duty as war: masters, cooks, nurses, and attendants in hospitals, and as stretcher bearers, litter bearers, and ambulance attendants in the field; and such other duties as might be proper authority be required of them.

P

Enlisted force of the Medical Department.

I. Authorized allowance.....	14,000
II. General distribution:	
Medical Department (including Dental Service).....	12,400
Medical Department, Veterinary Service.....	1,600
Grand total.....	14,000

III. Distribution by corps areas:

	First.	Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.	Eighth.	Ninth.	P. D.	H. D.	P. S.	Unassigned.
Medical Department.	269	1,109	1,208	1,462	430	686	507	1,274	651	903	230	230	65
Medical Department, Veterinary Service.	12	42	40	93	17	106	50	142	65	74	22	14	2

IV. Distribution at general hospitals and large station hospitals:

Walter Reed General Hospital.....	774
Army and Navy General Hospital.....	107
Fitzsimons General Hospital.....	476
Letterman General Hospital.....	396
Tripler General Hospital.....	152
Sternberg General Hospital.....	178
Fort Bliss Station Hospital.....	186
Fort Sam Houston.....	327

Mr. ANTHONY. Do the enlisted men of the Medical Department do all the work in connection with the post hospitals?

Col. WOLFE. In the small hospitals; yes, sir; but not in the larger hospitals. In the large hospitals there are large numbers of civilian employees. Those employees, however, are doing work for the most part of a kind that the enlisted men can not do.

Mr. ANTHONY. What class of work is that?

Col. WOLFE. You have them there by classifications. For instance, there are occupational or reconstruction aids, people who teach the sick how to use their hands and keep their minds off themselves. Then there are physiotherapy aids who apply certain special kinds of treatment. Those aids can not perform that service until they have had a course of instruction especially designed for them. Then we have experts in the way of brace makers and leather workers who prepare the special apparatus required at the present time for the injured that are still left from the war. Then there are a lot of cooks, clerks, etc. The classifications appear in the foregoing list. They are people who are doing a more or less technical or scientific work that the enlisted men can not do.

Mr. ANTHONY. We have here some dietitians.

Col. WOLFE. Yes, sir.

DIETITIANS.

Mr. ANTHONY. What is a dietitian in the Medical Service?

Col. WOLFE. In the Medical Service a dietitian is one who studies out the particular kind of food and the food values which are to be given to particular patients.

Mr. ANTHONY. Are the dietitians civilians?

Col. WOLFE. They are civilians; but in the future, or as soon as we can get them trained, it is the purpose to have the nursing corps do that instead of civilians.

Mr. ANTHONY. How many dietitians have you now?

Col. WOLFE. I have on the record here 16 in general hospitals and 8 in station hospitals.

Mr. ANTHONY. What pay do they receive?

Col. WOLFE. There are 13 dietitians and 3 head dietitians in the general hospitals. The dietitians get \$840, with board and lodging, and the head dietitian gets \$900. If they can be subsisted in the hospitals they are subsisted there, but if not, they are given \$62.50 per month additional.

REDUCTION IN CIVILIAN PERSONNEL.

Mr. ANTHONY. In the hearings last year it was indicated by the Medical Department that the number of civilians in the Medical Corps would be reduced in the proportion that you enlisted the full

strength of the Corps. Has there been any considerable reduction of civilians?

Col. WOLFE. The reduction in civilians has been due to the closing of hospitals rather than by any reduction in the number at each hospital. There has been a marked reduction in the number. For the fiscal year 1920, our estimate was for \$2,373,110, whereas this year the estimate for the same purpose is \$742,857.

Mr. ANTHONY. There has been a marked reduction?

Col. WOLFE. Yes, sir; there has been a marked reduction.

Mr. ANTHONY. That item is also included in this \$5,600,000?

Col. WOLFE. Yes, sir.

ASSIGNMENT OF ENLISTED PERSONNEL.

Mr. ANTHONY. You were speaking a while ago about the way the enlisted force of the Medical Department is stationed. Do you station any considerable number of enlisted men of the Medical Department in purely military groups that have no actual hospital duties to perform?

Col. WOLFE. The only such men are in what is known as the Medical regiment. That is an organization in camps where there are divisional formations. We have about seven such regiments at the present time. They consist of three ambulance companies and three hospital companies.

Mr. ANTHONY. What is their strength?

Col. WOLFE. The total enlisted strength of a Medical regiment is 860 at war strength and 277 at peace strength.

Mr. ANTHONY. You have how many enlisted men in those regimental organizations?

Col. WOLFE. I do not know how many, but I can give you the total number in the record.

Mr. ANTHONY. Roughly, how many would there be?

Col. WOLFE. If they were at full war strength, I should say there would be about 7,740 men. When organized under the new tables of organization there will be 2,100 men in the seven regiments. That is, there will be one medical regiment with each organized division and there are seven such divisions.

Mr. ANTHONY. Do you think it is necessary to maintain as large a number of men as that?

Col. WOLFE. It is not at the present time. The maintenance of a minimum number of ambulance companies and field hospitals is, however, necessary in order that at least a small portion of the Medical Department enlisted men may be properly trained in field work and that these units of the Medical Department, so vitally necessary in the event of field operations, may be prepared at a moment's notice in any emergency, even in domestic crises, to accompany the fighting forces and render the necessary care to the sick and wounded. While these units constitute an important adjunct in our training schedules, particularly with reference to the training of reserve forces, they are not a direct charge against training functions. They carry on other very important duties, such as the transportation and evacuation of the sick in the camps, providing temporary hospitalization wherever permanent hospitalization is not available, and at times they are called upon to perform

duty in the permanent station hospital in connection with the care of the sick and injured. They also perform important sanitary functions in connection with the routine demands of the commands to which they are assigned. These units authorized are permanent and are maintained in number barely sufficient to meet the emergency demands of field service.

In connection with the maintenance by the Medical Department of units of this type, it is of interest to note the result of a comparison of the war and peace strength prescribed in "Tables of Organization" for units of the line, and those for the Medical Department. For the line, the ratio of reduction, from war to peace strength, is approximately and respectively 2 to 1. For the Medical Department units attached to line organizations, the ratio of reduction, from war to peace strength, is approximately and respectively 3 to 1.

Mr. ANTHONY. If the Army were recruited up to the maximum authorized strength, you would have need for that many?

Col. WOLFE. I think so; yes, sir.

Mr. ANTHONY. Do you think it is necessary to maintain as large a number as that in these organizations?

Col. WOLFE. These organizations are training organizations and the men are passing through them. They are not permanently there, but they are separated for the time being into tactical units.

Mr. Sisson. You would have some sort of doctor or nurse for every 40 men, if you had 282,000 men?

Col. WOLFE. The authorized number of enlisted personnel for the Medical Department is 5 per cent of the enlisted strength of the Army.

The present allowance is insufficient, and if reduced would seriously impair the efficiency of the Medical Department directly and the Army indirectly and necessitate the abandonment of the majority of the duties above mentioned. The peacetime requirements of the Medical Department in enlisted men must be computed on the combined needs of three services—medical, dental, and veterinary—as influenced by the functions above set forth. In the national defense act of 1916 the peace strength of the enlisted forces of the Medical Department was fixed at 5 per cent as being the minimum with which it could efficiently meet its obligations. Since that time there has been included in the Medical Department another very important agency, viz, the Veterinary Service. To meet the needs of the Veterinary Service alone the department has tentatively authorized that 1,500 enlisted men of the Medical Department, to be selected from and included within the total number of enlisted men authorized for that department under existing law, be assigned exclusively to the Veterinary Service to care for the sick and injured arising among the 80,000 animals now in the Army and to carry out other important functions of that service, such as the inspection of meat and dairy products and forage furnished the Army. At present only 712 men are engaged in Veterinary Service, further enlistment of qualified men within our maximum allowances being urgent.

Considering, therefore, the needs of the Medical Department as they existed in 1916 and the additional responsibilities taken over by it since that date in the way of a Veterinary Service, section 10 of the Army reorganization act of June 4, 1920, has reduced the allowance of enlisted men formerly required by the Medical Department. Taking into consideration the needs of the services it now embraces, the strength of the enlisted force of the Medical Department not only can not be reduced, but there actually exists at this very moment an imperative need for an increase if the efficiency of those services is to be maintained.

Mr. Sisson. It seems to me that that is awfully high.

Mr. ANTHONY. That is what you need probably during time of war, but you do not really need that many in time of peace, do you?

Col. WOLFE. During time of war the number was increased to 10 per cent. It is a notable fact that it takes two men to take care of

one sick man, except when the sick people are in large groups. The enlisted personnel of the Army, of course, is not under consideration in this.

Mr. ANTHONY. No part of the expense item is?

Col. WOLFE. No, sir. I might state again, as I said last year, that the type of enlisted men received in the Medical Corps is not such as is qualified to be placed in charge of the sick during his first term of enlistment of one year.

Mr. Sisson. How is that?

Col. WOLFE. The type of enlisted man which is now coming into the Medical Department is not such as would justify the placing of them in charge of the sick during their one-year's enlistment. The man can not be trained into it in a year.

Mr. ANTHONY. It takes a considerable period for that?

Col. WOLFE. Yes, sir, it takes a considerable period. If you go into civilian hospitals and take the high-type and highly educated women who are training for nurses, you will see that it requires three years' training in order to be graduated. If you take enlisted men of the type that we are now getting, with much lower intelligence than those people, you can readily see that in one year they can not be trained so that they can be left in charge of sick men.

Mr. ANTHONY. This item of \$5,600,000 practically provides for the purchase of the medical supplies and for the civilian employees of the Medical Department, or those are the big items.

CIVILIAN PERSONNEL.

(See p. 942.)

Col. WOLFE. Let me enumerate what it is to pay for. The civilian employees constitute one of the large items. It pays for the laundry service for all the patients in the military hospitals, which is the next largest item.

Mr. Sisson. What is the estimate for civilian employees?

Col. WOLFE. The estimate for the coming year is \$1,200,000.

Mr. Sisson. How many do you have?

Col. WOLFE. This is based on an Army of 300,000 men.

Mr. Sisson. How many employees do you get out of that amount of money? Have you a statement made up showing that?

Col. WOLFE. I will give you the exact number. I thought I had with me the sheet that shows the total number. In the hospital alone there are 886. (See p. 951.)

Mr. Sisson. Is that all that is to be paid out of that \$1,200,000?

Col. WOLFE. No, sir; there are the employees at the Medical Supply Depots.

Mr. Sisson. How many employees do you have at the Medical Supply Depots?

Col. WOLFE. I judge that there are about 400.

Mr. Sisson. That would be about 1,200 in all.

Col. WOLFE. Yes, sir. At the present time our records show about 1,800.

RATE OF PAY.

Mr. Sisson. What is the maximum pay of any of the employees who are paid out of this fund?

Col. Wolfe. At the present time the maximum pay is for artificial limb makers, or \$2,700.

Mr. Sisson. And it goes down to what?

Col. Wolfe. \$180, with rations and lodging.

Mr. Sisson. What is the average pay in the service?

Col. Wolfe. \$550; to be more nearly exact, \$575 for all such employees. The average for those classed as salaries is \$500, and for those classed as wages it is \$745.

Mr. Sisson. That is the average pay of the people employed under this fund?

Col. Wolfe. No, sir; that is in the hospitals alone.

Mr. Sisson. I want to know the average salary paid out of that fund of \$1,200,000.

Col. Wolfe. I will have to give that in the record. Under both classifications, salaries and wages, it is \$699; under salaries alone, it is \$605; under wages alone, it is \$828.

Mr. Sisson. You pay no overhead charges out of that fund?

Col. Wolfe. No, sir; it covers the pay that is actually necessary in performing the service which we are required to furnish.

TOTAL COST OF MEDICAL DEPARTMENT.

Mr. Sisson. Have you a statement showing what the overhead expense will be? As I understand it, no overhead charge is paid out of this fund?

Col. Wolfe. No, sir.

Mr. Sisson. For instance, for your salary or for the salary of the Surgeon General?

Col. Wolfe. No, sir.

Mr. Sisson. Can you state what that overhead charge would be?

Col. Wolfe. Do you wish to include buildings in that?

Mr. Sisson. No; I want the overhead charge in salaries, and not buildings. For instance, you have a certain number of people who have to deal with the hospitals?

Col. Wolfe. Yes, sir.

Mr. Sisson. Including officers?

Col. Wolfe. Yes, sir.

Mr. Sisson. And you have civilian employees and help about the institutions. What I want is the present pay roll covering personnel, including the overhead charge from the Surgeon General down.

Col. Wolfe. That would pretty nearly include the whole pay of the Medical Department.

Mr. Sisson. I think it is fair that the people should know what it is costing us.

Col. Wolfe. Perhaps the chief of finance can tell you what is the estimated amount for the pay of the medical service.

Mr. Sisson. I do not care where it comes from.

Col. Wolfe. I do not know that. If you would like to have the total cost, so far as we can estimate it, for the Medical Department, I will be glad to supply it.

Mr. Sisson. I want to know what that service is costing the Treasury. I suppose you understand what I want?

Col. WOLFE. Yes, sir. That does not involve anything except the pay of the personnel.

Mr. Sisson. That is all I want in that statement.

NOTE.—I find on checking up the cost of the Medical Department personnel as of January 5, 1921, that the total amount less quarters and light and heat or commutation therefor is approximately—

Officers:

The Surgeon General.....	\$8,000.00	
2 Assistant Surgeon Generals.....	12,000.00	
1,209 Medical Corps (colonels to first lieutenants, inclusive).....	3,771,760.00	
259 Dental Corps (colonels to first lieutenants, inclusive).....	856,310.00	
175 Veterinary Corps (colonels to second lieutenants, inclusive).....	490,940.00	
140 Administrative Corps (captains to second lieutenants, inclusive).....	440,300.00	
36 contract surgeons.....	50,712.00	
1,100 nurses—		
Pay.....	\$1,078,976.00	
Allowances.....	365,762.65	
		1,444,738.65
13,187 enlisted men (all grades).....		5,936,063.00
Total.....		13,010,823.65
Cost per unit military population based on an army of 300,000.....		43.37

Civil employees:

A. Surgeon General's Office, 196 clerks, assistant librarians, pathologist, messengers, laborers, etc.	\$253,740.00	
B. Medical Department at large (field force), 1,392 clerks, cooks, skilled labor, technical personnel, laborers, watchmen, etc.....	1,223,637.50	
Total for civilian employees.....		1,477,377.50
Total for commissioned, enlisted, etc.....		13,010,823.65
Aggregate for personnel.....		14,488,201.15

MOTOR AMBULANCES.

Mr. ANTHONY. Referring to the wording or language of the bill. I notice that this provision is continued:

That the Secretary of War may, in his discretion, select types and makes of motor ambulances for the Army and authorize their purchase without regard to the law prescribing advertisements for proposals for supplies and materials for the Army.

What is the necessity of carrying the language of that proviso?

Col. WOLFE. That is put in there because it has been included in previous bills, and it was deemed inexpedient to strike it out.

Mr. ANTHONY. Have you ceased to experiment with motor ambulances?

Col. WOLFE. No, sir; not entirely.

Mr. ANTHONY. Have you not selected the type that you consider the best?

Col. WOLFE. That is one thing which, like the airplane, is changing. We are not making at the present time any experiments with motor ambulances.

Mr. ANTHONY. Do you intend to spend any of the money in this bill for motor ambulances?

Col. WOLFE. No, sir; we do not handle motor ambulances any longer.

Mr. ANTHONY. Have you discarded them?

Col. WOLFE. No, sir; they are handled by the Quartermaster service. They are bought, stored, repaired, and maintained by the motor transport branch of the Quartermaster General's office.

Mr. ANTHONY. So that the Surgeon General has nothing more to say with regard to the purchase of ambulances?

Col. WOLFE. Except that we determine the types.

Mr. ANTHONY. Do you know whether they contemplate purchasing any this year?

Col. WOLFE. No, sir; none is to be purchased this year.

SURPLUS AMBULANCES.

Mr. ANTHONY. You have an abundant supply?

Col. WOLFE. None is to be purchased unless some emergency arises.

Mr. Sisson. As a matter of fact, you ought to have a good deal of surplus of that kind of stuff?

Col. WOLFE. I presume that there is some surplus.

Mr. Sisson. Do you know whether there is or not?

Col. WOLFE. I am not certain.

Mr. Sisson. How could we find out?

Col. WOLFE. From the Chief of the Motor Transport Branch of the Quartermaster General's office.

Mr. ANTHONY. I think it would be proper for you to ascertain the quantity of motor ambulances on hand and of other vehicles pertaining to the Medical Department, because the Surgeon General probably has that information. If you can get that information for us, please put it in the record.

Col. WOLFE. I will do that; but I would like to say that the Surgeon General has been divested of all control over those things. They are not issued by his request any more.

Mr. ANTHONY. But he should have knowledge of what is on hand?

Mr. Sisson. He should have knowledge of what has been turned over to him on requisitions by him.

Col. WOLFE. None has been turned over to him, because he turned over all that he had to the Motor Transport Branch of the Quartermaster General's office.

Mr. ANTHONY. Who keeps track of that? Some committee of the General Staff?

Col. WOLFE. The Chief of the Motor Transport Service of the Quartermaster General's office.

Mr. ANTHONY. They do not know how many ambulances the Medical Department needs or what you have in reserve. They must get their instructions from some other source. That comes under the General Staff, does it not?

Col. WOLFE. Yes, sir.

NOTE.—The chief, Motor Transport Service, Quartermaster General's office, reports a total of 2,415 assembled ambulances, 275 chassis, 700 bodies. Of these 798 assembled ambulances are in operation and 1,622 in storage, of which 1,394 are unserviceable. There are 45 serviceable chassis and 700 bodies in storage. There are 220 unserviceable chassis.

Mr. Sisson. There is something rather remarkable about anything that moves on wheels by means of gasoline or electricity. It has been

utterly impossible for this committee to find out anything about the automobiles connected with this Government anywhere at any time without a world of trouble. We have been at it now for two years. I do not know why they pass the buck. Possibly it is due to our obtuseness that we do not understand the department's way of doing things.

NURSES.

Mr. ANTHONY. How many nurses have you in the Medical Corps at this time?

Col. WOLFE. I can not answer that question because that is a personnel matter, and I have to deal only with supplies. I can tell you about the civilian employees, but the Army Nurse Corps is another branch of the office. I will be glad to get that information for you.

Mr. ANTHONY. Furnish a statement showing the number you have now and how many you propose to have during the coming fiscal year.

Col. WOLFE. I will do so.

NOTE.—Present number 1,100. For an Army of 150,000 there will be 750; for 175,000 there would be 875.

Mr. ANTHONY. I suppose the number of nurses would be dependent upon the size of the Army.

Col. WOLFE. Yes, sir; the nurses are based, roughly, upon the anticipated morbidity or sickness of 5 per cent of the troops and 1 nurse to 10 patients. In other words, it is approximately one-half of 1 per cent of the strength of the Army.

Mr. ANTHONY. How many nurses have you that are a part of the military service?

Col. WOLFE. They are all a part of the military service, except those who are employed for the care of military personnel who require special nursing and who are stationed at places where the facilities of the Army are not available.

Mr. ANTHONY. What is the status of the nurse at this time in the Army? Does she enlist for a term of years?

Col. WOLFE. She has a contract for a term of years, yes, sir. The appointment conforms more nearly, perhaps, to that of civilian employees in that an oath of office is required and an agreement to remain for a period of three years.

Mr. ANTHONY. Then, in addition to those under regular contract for a term of years, you employ as the necessity arises?

Col. WOLFE. They are employed when the Army Corps of Nurses is not adequate. This bill authorizes the employment of temporary nurses to meet emergencies. At the present time there are a good many student nurses.

CONTRACT SURGEONS.

Mr. ANTHONY. Can you tell us anything in regard to the contract surgeons? We asked that question the other day and could not get any information. We were told we would have to wait until we had the Medical Department before us. We have asked Gen. Lord to give us the names----

Col. WOLFE (interposing). Do you wish the names?

Mr. ANTHONY. The names, locations, and salaries.

Contract surgeons, United States Army, now on active duty.

Name.	Monthly compensation.	Station.
Blair, Vilray P.....	\$75	Jefferson Barracks, Mo.
Boyer, Ulysses S.....	150	Rock Island Arsenal, Ill.
Buskirk, William H.....	100	Fort Keough Remount Depot, Mont.
Cantrell, William B.....	150	Wingate general ordnance depot, N. Mex.
Catto, William B.....	150	Fort Reno Remount Depot, Okla.
Cooke, Robert P.....	150	Front Royal Remount Depot, Va.
Curlee, Elijah L.....	75	Camp McClellan, Ala.
Dabney, William G.....	150	Atlanta, Ga.
Ellis, Alfred L.....	150	Baritan Arsenal, N. J.
Garten, Frank.....	100	Fort Schuyler, N. Y.
Gschrist, John M.....	100	Springfield Armory, Mass.
Huber, G. Carl.....	150	Ann Arbor, Mich.
Ivy, Robert H.....	75	Walter Reed General Hospital, D. C.
Kerr, Harry H.....	150	Dq.
McAfee, Loy.....	150	New York, City.
McKnight, Mary P.....	150	S. G. O. (Army Medical School).
Maher, Loretta K.....	150	Attending Surgeon's Office, Washington, D. C.
Mountain, George W.....	150	Augusta Arsenal, Ga.
Muller, George P.....	1	Philadelphia, Pa.
Neel, Harry A. P.....	150	Frankfort Arsenal, Philadelphia.
Noonan, Francis J.....	150	Watervliet Arsenal, N. Y.
Norton, Dana O.....	75	R. O. T. C., Fort Collins, Colo.
Pool, Henry J.....	75	Erie Proving Ground, Ohio.
Porter, Jos. Y., jr.....	150	Key West Barracks, Fla.
Reeder, Henry H.....	75	M. T. G. D., Jeffersonville, Ind.
Richards, Benjamin F.....	75	Fort Robinson, Nebr.
Rose, Wallace D.....	75	Fort Logan H. Roots, Ark.
Schaeffer, George C.....	150	Columbus Barracks, Ohio.
Sims, Bartlett C.....	150	R. O. T. C., A. & M. College, College Station, Tex.
Smith, Clarence A.....	126	Seattle, Wash.
Smith, William A.....	150	Charleston, S. C.
Stein, William F.....	75	Juneau, Alaska.
Sutherland, William H.....	75	Rochester District Ordnance Depot.
Vanneman, Joseph S.....	50	R. O. T. C., Princeton University, Princeton, N. J.
Vose, Royden M.....	150	R. O. T. C., Cornell University, Ithaca, N. Y.
Yoe, Richard T.....	150	Louisville, Ky.

Gen. LORD. In connection with your previous question, I will say that there were 1,488 nurses estimated for in the Book of Estimates for 1922. That number was furnished by the office of the Surgeon General.

Mr. ANTHONY. The nurses are paid under what item?

Gen. LORD. Under pay of the Army.

Mr. Sisson. Are all those nurses assigned to those 3,200 patients that the Surgeon General talked about?

Col. WOLFE. The Surgeon General spoke only of the patients in the general hospitals, or in the five hospitals. That is not half the patient list of the Army.

Mr. Sisson. Does that come directly under you?

Col. WOLFE. That is not half the number, because there are patients all the way down from the big general hospitals to the one-company artillery and two-company artillery posts.

HOSPITALS.

Mr. Sisson. I got somewhat confused on the matter. Under this appropriation you deal with the hospitals, and they are directly under the Surgeon General?

Col. WOLFE. The hospitals under the Army are under him, although he is not the immediate superior officer over them.

NUMBER OF PATIENTS.

Mr. Sisson. In order to get my own mind straight on the matter, let me ask you this: You have about 3,200 patients in the general hospitals, according to the Surgeon General's statement this morning and I want to know how many patients you have in hospitals other than the five general hospitals?

Col. WOLFE. The report of December 24 shows the total number of patients in the Army for that week as 7,632.

Mr. Sisson. Including the 3,200 in the general hospitals?

Col. WOLFE. Yes, sir.

Mr. Sisson. That would allow one nurse for four patients?

Col. WOLFE. One nurse to seven patients.

Mr. ANTHONY. How many in the Army are being treated in private hospitals?

COST OF THE SERVICES OF PRIVATE HOSPITALS.

Col. WOLFE. There are no men of the Army being treated in private hospitals where a Government hospital is available, but when a man on detached service located where there is no military hospital available gets ill or is injured, he is entitled under the terms of the bill to be treated at the place where he is sick, or in a civilian hospital if need be.

Mr. ANTHONY. If he is injured or becomes sick anywhere, he is treated at the nearest point where medical aid can be given him?

Col. WOLFE. Yes, sir; provided he be on a duty status. If he is on leave he bears his own expense under the proviso of this act.

Mr. ANTHONY. What is the amount of the appropriation used for that purpose?

Col. WOLFE. For the fiscal year 1920 our records show an expenditure of \$57,058.11.

Mr. ANTHONY. How much are you asking for under that same heading in the present bill?

Col. WOLFE. We are asking for \$103,000 for all medical attendance, including dental, veterinary, nursing, and medicine given on prescription. That is on the basis of an army of 300,000 men. Taking into consideration the distribution of the personnel at the recruiting stations and in the reserve officers' training units, the amount which will probably be required to care for them this coming year will be greater than was required last year. It seems probable that more people will be on detached duty then than we have at the present time.

TUITION OF MEDICAL OFFICERS AND NURSES.

Mr. ANTHONY. You have some new language here, as follows.

For tuition of officers of the Medical Department, including the Army Nurse Corps under section 127a of the Army reorganization act approved June 4, 1920.

Col. WOLFE. Yes, sir.

Mr. ANTHONY. Why do you introduce this new language, when, as I understand it, the comptroller has already ruled that the appropriation is applicable to that purpose?

Col. WOLFE. It is desired to have it in the statute so that there will be no question about it.

Mr. ANTHONY. The other technical departments of the Army have such express authority, have they not?

Col. WOLFE. I think so. We simply ask that it be put in here so there will be no question at any time in regard to a legitimate sum being expended for this purpose.

Mr. Sisson. How much do you expect to expend for this purpose, or for tuition of Army officers of the Medical Department, including the Army Nurse Corps?

Col. WOLFE. \$19,500.

COURSES OF STUDY.

Mr. Sisson. What sort of training do you give them?

Col. WOLFE. We give them postgraduate instruction in medicine, surgery, preventive medicine, laboratory work, and such other specialties as the several officers so designated may desire.

Mr. Sisson. Where is that given?

Col. WOLFE. At the various large medical colleges; that is, at Johns Hopkins, Harvard, Yale, the University of Pennsylvania, and the College of Physicians and Surgeons of New York, and other large medical institutions. We place the nurses at the principal nursing centers, and have the dental men at the principal dental colleges.

SELECTION OF NURSES.

Mr. Sisson. Who selects the nurses who will take the courses of instruction, or what method is followed in ascertaining who shall go?

Col. WOLFE. They are selected or designated by the Surgeon General on the recommendation of the superintendent of the Army Nurse Corps. They are selected on the basis of length of service, efficiency, adaptability, and reliability.

Mr. Sisson. After being selected to go to an institution, how long are they supposed to stay? Do they remain until graduated?

Col. WOLFE. It is a postgraduate course, and it may be three months or six months.

Mr. Sisson. I understand; but even in postgraduate work they have certain prescribed courses.

Col. WOLFE. Yes, sir; and they take postgraduate courses in different subjects. They go in and specialize in different subjects, such as mental diseases, contagious diseases, administration of anesthetics, special medical and surgical nursing, dietetics, and visiting nursing. If the course be for six months they remain six months, if it be for nine months they remain nine months.

Mr. Sisson. What does it usually cost to put one of those nurses through?

Col. WOLFE. I have no basis on which to give an estimate of that.

Mr. Sisson. Then, how do you arrive at this amount of money?

Col. WOLFE. We estimated that it would be approximately the same amount that is required for medical officers, or \$250.

Mr. Sisson. Is that the entire expense that the Government would have to bear?

Col. WOLFE. The other expense is the officer's salary.

Mr. Sisson. I understand that while taking this course their salaries will go on?

Col. WOLFE. Yes, sir.

Gen. LORD. And he gets the usual commutations?

Col. WOLFE. He gets nothing else.

Mr. Sisson. The only thing paid out of this appropriation is the tuition?

Col. WOLFE. Yes, sir.

Mr. Sisson. Then he may get his pay as an Army officer, but that comes from another item?

Col. WOLFE. Yes, sir.

Mr. Sisson. Do nurses get the same pay as officers or the same commutation of quarters?

Col. WOLFE. Under existing laws the Superintendent of the Nurse Corps receives in pay \$2,880; assistant superintendents, \$2,160; chief nurses, \$1,296 to \$1,584, in accordance with length of service; nurses, \$864 to \$1,152, according to length of service. They also receive quarters and rations or commutation therefor.

Mr. Sisson. Where does that money come from?

Col. WOLFE. From pay of the Army.

Mr. Sisson. They get their pay just as officers get their pay?

Col. WOLFE. Yes, sir; in other words, they continue to be of the military personnel, and the only difference is that their tuition is paid out of this fund.

Mr. ANTHONY. They are simply assigned to duty at those schools for instruction.

Mr. Sisson. What obligation are they under after the Government has given them this tuition to remain in the Government service, or how long are they presumed to stay?

Col. WOLFE. As a matter of fact, they generally stay the rest of their lives.

Mr. Sisson. How long would it be expected that they would remain, either by contract, by law, or by some regulation, or when would it be considered proper and honorable for them to leave the service—the day after getting their postgraduate course?

Col. WOLFE. No, sir.

Mr. ANTHONY. But they could go if they wanted to?

Col. WOLFE. I know of nothing in the regulations to prevent either an Army officer or a nurse from resigning the day after completing this course, if the Secretary of War chooses to accept the resignation.

Mr. Sisson. Of course, that would not be exactly an honorable thing to do, and I do not imagine that the Secretary of War would accept the resignation under those conditions; but in that case you might have a very unsatisfactory nurse or a very unsatisfactory officer. What I was endeavoring to arrive at was whether or not when they take these courses they usually remain in the service.

Col. WOLFE. I think they will remain, because only selected people are sent there of whose continuance in the service we are reasonably well assured. They will be required to agree, in writing, to remain in the Army Nurse Corps for three years or more.

Mr. Sisson. Is this the nose under the tent, or is it the whole camel under the tent?

Col. WOLFE. So far as I know, it is the whole camel. The law provides for 2 per cent, and that is all we can have.

PUBLICATION OF MEDICAL BULLETINS.

Mr. ANTHONY. Why do you need this new language: "For the printing and issuing of Army medical bulletins and supplements?" I ask that because the sundry civil bill carries for the War Department, its bureaus and offices, \$450,000 for printing and binding, with the proviso, "That the sum of \$3,000 or so much thereof as may be necessary may be used for the publication, from time to time, of bulletins prepared under the direction of the Surgeon General of the Army, for the instruction of medical officers, when approved by the Secretary of War."

Col. WOLFE. Yes, sir; but the bulletins prepared under that authority are what you might call monographs on definite medical subjects. For example, Maj. King prepared a monograph on insanity. It was a pamphlet of perhaps 100 pages. Another officer prepared one, I think, on syphilis and venereal diseases. Those monographs were printed and distributed. What we are in need of at the present time is a method of communication between our Medical Department and each of the active medical officers and the medical officers in the Reserve Corps. Much of interest and value is being developed continually in the big hospitals, and we have no means of placing that information in the hands of the men who can not be at the hospitals.

Mr. ANTHONY. You ask for the same authority and for the same appropriation in the sundry civil bill this year?

Col. WOLFE. It did go into that bill, but I said to Mr. Good, the chairman of the committee, that if this were approved we would not want that.

Mr. Sisson. Do you know whether it went out of the sundry civil bill or not?

Col. WOLFE. I do not know.

Mr. ANTHONY. I understand that it is in that bill.

Mr. Sisson. Then, you do not want this item here?

Col. WOLFE. If it were possible to eliminate it from the other bill and put it in this bill, it would be very much more satisfactory, and I believe more efficiently handled.

Mr. Sisson. You do not want it in both bills?

Mr. ANTHONY. If it goes through in the other bill, we will have to take it out of this bill. If we get this on the floor in time to take it out of the other bill, we might do that and put it in this bill.

Col. WOLFE. The wording was placed in this bill after the other bill had gone forward, not because of any desire to get an additional sum, but to make it possible for us to use the money more readily, which is necessary for the publication of such material. In this connection I will say that the Naval Service has a bulletin or journal which is published at stated intervals, and it has been for years.

NURSES—NUMBER REQUIRED FOR VETERANS.

Mr. ANTHONY. In regard to the nurses, how many are needed for the veterans of the late war that are still in military hospitals?

Col. WOLFE. Well, at the present time, I should say that with 504 patients in general hospitals, it would require about 55 nurses.

Mr. ANTHONY. The need for nurses for this purpose will soon pass out?

Col. WOLFE. For that particular group of people; yes, sir. Of course, as they pass out nurses will not be required for them, but so long as others come in to take their places, from the present Regular Army, the number would not vary.

EFFECT OF GIVING RANK TO NURSES.

Mr. ANTHONY. You have recently given rank to the nurses in conformity with the recent legislation?

Col. WOLFE. Yes, sir.

Mr. ANTHONY. What has been the result of that?

Col. WOLFE. So far as records have come in, there has been very little change. The harmony, perhaps, has increased a little. It seems to have bettered the service at large.

Mr. ANTHONY. It has satisfied the nurses?

Col. WOLFE. Yes, sir; it has satisfied the nurses, and I think it has increased the morale of the institutions.

Mr. ANTHONY. You can not see any ill effect from it?

Col. WOLFE. No, sir; there is no ill effect. It has not been in force long enough to enable us to form any very satisfactory conclusion, but the results from it on the whole have been for the improvement or betterment of the service, and it has not increased the cost to the Government. It may be said, however, that the morale of the corps had been strengthened because of the fact that the position of nurses in the Army system has been made definite. This was a need which had been strongly felt throughout the corps for a long time. At those stations where the commanding officers have explained the change of status of the nurses to the hospital detachment men there has been a decided increase of cooperation between the nurses and the enlisted men with whom they come in contact. At the stations where the commanding officers have not made evident a sympathetic feeling toward the change, the position of nurse has been made more difficult and discourtesy has increased. There is little to show of tangible benefits that have accrued to nurses attached to hospitals but those who are on detached duty have benefited financially by the fact that they are entitled to the commutation of quarters which corresponds to that received by officers of similar grade.

The administration of the corps in the office of the Surgeon General has been greatly facilitated by the legislation conferring relative rank. Direct communication between the officials of the corps and other officers of the Medical Department is now possible (through channels). Responsibility for the administration of the corps is now direct and definite. Authority in matters concerning the corps is no longer placed upon medical officers who are only secondaries.

concerned. As a whole the position of the large group of nurses who are the only women members of the Army has been made absolutely definite in such a way that it can be recognized by the most uninformed member of the Army, and so that constant interpretation of orders governing "officers and enlisted men," as to which group was to contain the Nurse Corps, need no longer be made.

PAYMENT OF EXPRESS CHARGES.

Mr. Sisson. How much of this appropriation do you use for the payment of express charges?

Col. WOLFE. We are estimating for \$5,000, but I do not have any idea we will expend that much; the same amount has been estimated for a considerable number of years.

Mr. Sisson. Is any considerable amount expended for supplies used in teaching the art of cooking to the enlisted force of the Medical Department?

Col. WOLFE. We have never set up anything as a special estimate; we have never prepared a special estimate for that item.

Mr. Sisson. Do you ever spend any of the money for that purpose?

Col. WOLFE. It is put in there so that it may be expended if it is necessary, but so far as I know very little has been expended under that heading.

VOCATIONAL TRAINING AT MILITARY HOSPITALS.

Mr. ANTHONY. What is being done in the way of vocational rehabilitation of men undergoing treatment at military hospitals?

Col. WOLFE. You mean the kind of instruction which is given them?

Mr. ANTHONY. Yes. Are you giving any such instruction?

Col. WOLFE. Oh, yes; very extensively.

Mr. ANTHONY. To the 500 men you have left?

Col. WOLFE. To the 500 men and to all the other men who are in the hospitals.

CLASS OF INSTRUCTIONS.

Mr. ANTHONY. What class of instruction are you giving them?

Col. WOLFE. Instruction in the trades, craft work, and, I believe, courses are being given in typewriting and stenography; there have been given courses in banking, and the particular course given depends on what the men can probably do after getting well.

Mr. ANTHONY. Every patient who is able to use his hands or his head is given something to do?

Col. WOLFE. We give him something to do, yes, and we try to give him that which will, considering his personality, be of the greatest value to him after he is discharged from the hospital.

Mr. ANTHONY. That is being done by a force of civilian instructors?

Col. WOLFE. Yes, sir; they are what we call the occupational therapy or reconstruction aids.

Mr. ANTHONY. Is that under the vocational training activities of the War Department?

Col. WOLFE. No, sir; that is under the Surgeon General.

Mr. Sisson. Where does he get the money with which to employ instructors?

Col. WOLFE. Out of this appropriation.

COST.

Mr. ANTHONY. How much of the appropriation are you using for that purpose and do you contemplate using in the next fiscal year?

Col. WOLFE. I would have to tabulate that for you; I have the total tabulated, but I do not have it divided into groups. For services \$86,712, for supplies \$24,091.88.

APPROPRIATIONS FOR HOT SPRINGS HOSPITAL.

Mr. ANTHONY. I want to ask you a question about the Hot Springs Hospital. Does the money for the operation of that hospital come out of this appropriation?

Col. WOLFE. It comes out of three appropriations—pay of the Army for the officers and enlisted men, the general appropriation for the Quartermaster Corps for the repair and upkeep of buildings and grounds, and the medical and hospital department for the medicines and interior equipment of the hospital.

Mr. ANTHONY. Is that classed as one of the four general hospitals which you said you are still maintaining?

Col. WOLFE. Yes, sir.

Mr. ANTHONY. What men are under treatment there? Are they most largely men from the Regular Service or have you war veterans there?

Col. WOLFE. I think there are some war veterans there. It was primarily intended for men who are in the military service, who are on the retired list, or who are veterans of one of the wars.

Mr. ANTHONY. You permit a soldier, after he has received his discharge from the Army, to return to that hospital for treatment, if necessary?

Col. WOLFE. Army Regulations provide for the treatment at the hospital of (1) officers and enlisted men of the Army, Navy, and Marine Corps on the active list and cadets at the Military Academy and the Naval Academy; (2) officers and enlisted men of the Army, Navy, and Marine Corps on the retired list; (3) officers of the Revenue Cutter Service and of the Public Health Service; (4) honorably discharged soldiers and sailors of the Regular and Volunteer Army of the United States.

Mr. ANTHONY. That is my understanding, too; that there are cases especially since this war, where men have expressed the desire to receive further treatment and that they have been permitted to go there.

Col. WOLFE. Yes, sir; veterans of the last war can get treatment there.

Mr. ANTHONY. Is the treatment at that hospital confined almost entirely to blood diseases?

Col. WOLFE. No, sir; largely chronic ailments for which the waters are supposed to have value—chronic rheumatism, chronic arthritis, kidney diseases, and things of that sort. Blood diseases are excluded; syphilis cases are not supposed to be sent there.

Mr. ANTHONY. I thought that was one of the reasons for the location of the hospital at that point.

Mr. Sisson. It is the common understanding that that is the place where the boys want to go when they get in trouble.

Col. WOLFE. That is the common place where people in civil life want to go, but it is not a qualification for admission to that particular hospital. Paragraph 2, Circular No. 62, War Department, September 26, 1910, provides for the following conditions: In the various forms of gout and rheumatism, after the acute or inflammatory stage; neuralgia, especially when depending upon gout, rheumatism, or metallic or malarial poisoning; paralysis not of organic origin; the earlier stages of locomotor ataxia; chronic Bright's disease (the early stages only); functional diseases of the liver; chronic skin diseases, especially the squamous varieties, and chronic conditions due to malarial infection.

Mr. ANTHONY. You treat syphilis in the Army now by a course of specifics?

Col. WOLFE. Yes, sir.

Mr. ANTHONY. And it is not necessary to send them to this hospital?

Col. WOLFE. As a matter of fact, it is not of any great value to send them there for that purpose; it is not the water that does the good; it is the treatment they get in addition to it. The hot water and the massage given there is of certain value in certain types of chronic ailments, such as rheumatic and arthritic diseases. There is one thing to which I should like to call attention: In the report of appropriations for the Medical Department for the year 1920 the total given is \$4,500,000; apparently an oversight was made of \$1,500,000 in public document 155, of March 6.

Mr. Sisson. How was that, Colonel?

Col. WOLFE. In the list of appropriations made for the Medical Department, on page 85, the appropriation for the fiscal year 1920 is given as \$4,500,000; as a matter of fact, the second deficiency bill, Public Document 155, act of March 6, 1920, added to that \$1,500,000, House resolution 12046. In other words, the appropriation for the Medical Department for the fiscal year 1920 was \$6,000,000 instead of \$4,500,000. I may say further that the average number of enlisted personnel that we came in contact with was 250,000 during that year.

HOSPITAL CARE, CANAL ZONE GARRISONS.

Mr. ANTHONY. In the next item, hospital care, Canal Zone garrisons, you are asking \$60,000 for the next fiscal year, and you were given \$60,000 for the current fiscal year. Did you use or will you use all of the money of the current appropriation?

Col. WOLFE. I will have to refer you to the chief of finance because I have no reports on that. The matter is handled in this way: The troops on the Canal Zone are admitted to the hospitals on the Panama Canal.

Mr. ANTHONY. You have no military hospitals there?

Col. WOLFE. No. And whatever the expense is it is charged to this fund, except that it is divided into subsistence and medical

charges, and that is settled between the Panama Canal government and the finance service.

Mr. Sisson. It is the hospital which the Government built for the Panaman Government?

Col. WOLFE. It is the hospital which was erected during the construction of the canal.

Mr. Sisson. We used it during that time, but it is the Panaman Hospital, is it not?

Col. WOLFE. Yes, sir.

Mr. Sisson. It is the hospital in the city of Panama?

Col. WOLFE. No, sir. In Ancon.

Mr. Sisson. When we built the hospital it was with the understanding that when the canal was completed it was to be under the control of the Panaman authorities, but we reserved the right to put patients in that hospital and pay the charges.

Col. WOLFE. This hospital is under the control of the Canal Zone government; it is for the use of the civil employees of the canal.

Mr. Sisson. Is this the main hospital there?

Col. WOLFE. There are two, I think. The main hospital is at Ancon.

Mr. Sisson. This is the Ancon Hospital?

Col. WOLFE. Yes.

Mr. Sisson. I did not have that in mind.

Col. WOLFE. It is a civil government hospital and is not the local city hospital.

Mr. ANTHONY. It has nothing to do with the local hospital maintained by the Panaman Government?

Col. WOLFE. No; this is an institution which is under the American governor of the zone.

Mr. ANTHONY. How many troops have we there now?

Col. WOLFE. I do not know.

Mr. Sisson. You say this hospital is for the civil employees of the Panama Canal?

Col. WOLFE. Yes, and it is used for the sick of the military personnel, the officers and enlisted men.

Mr. Sisson. This hospital has nothing to do with the marines who are stationed there?

Col. WOLFE. No, sir.

Mr. Sisson. Nor with the naval officers?

Col. WOLFE. No.

Gen. LORD. On December 1 the total amount unallotted and unobligated under this appropriation was \$18,000.

Mr. ANTHONY. Just about enough to see you through, then?

Gen. LORD. Yes.

Mr. ANTHONY. You have been receiving that amount for the last three years?

Col. WOLFE. Yes. Whatever amount is not actually expended in the treatment of the sick is returned to the Treasury; it is not available for any other purpose.

Mr. Sisson. You can not afford to make that the rule for appropriations because if you did you would have the Government loaded down with debt, and that does not insure economy in Government expenditure.

Col. WOLFE. I quite understand that.

Mr. ANTHONY. It is my understanding that it is the present policy to increase the number of men there rather than diminish the number.

Col. WOLFE. Yes, sir.

Mr. ANTHONY. So the probabilities are that you will use this amount of money?

Col. WOLFE. Yes.

Col. HICKMAN. There are about 7,000 on the Canal Zone.

ARMY MEDICAL MUSEUM.

Mr. ANTHONY. The next item is for the Army Medical Museum. You are asking \$20,000 for the next year, and you had \$20,000 for the current fiscal year, which was an increase of 100 per cent over the appropriation for the preceding year. I suppose a good deal of that increase was required for the purpose of taking care of the things that were thought valuable as a result of this war.

Col. WOLFE. It is wholly in regard to the specimens which have come in as a result of the war, and which we are endeavoring to get into such shape that they can be preserved and studied by medical officers.

NOTE.—The estimate comprises \$15,000 for museum jars, \$2,500 for apparatus and models, \$1,600 for photomicrographic apparatus and repairs thereto, \$630 for wax model supplies and apparatus, \$145 for apparatus for preparation of specimens, and \$125 for other materials in preparation of specimens.

Mr. ANTHONY. How far has that work progressed?

Col. WOLFE. I should say it is more than half finished.

Mr. ANTHONY. You see there was a pretty radical jump from the \$5,000 that we have been in the habit of allowing for the Medical Museum to \$20,000.

Gen. LORD. There was a free balance of \$14,000 on December 1.

Mr. Sisson. Where is this museum?

Col. WOLFE. It is at the corner of Seventh and B Streets SW.

Mr. Sisson. I suppose the specimens you have there will not be injured if they are not cared for immediately.

Col. WOLFE. The trouble is that they are deteriorating.

Mr. ANTHONY. What are you preserving there—the actual physical specimens?

Col. WOLFE. Yes; the actual physical specimens.

Mr. ANTHONY. In what do you preserve them—in alcohol?

Col. WOLFE. They are principally fixed in formaldehyde and then preserved in alcohol; after the preparation of the specimens has been completed they are preserved in alcohol in sealed jars.

Mr. ANTHONY. The Volstead Act has not interfered with your use of alcohol for that purpose so far?

Col. WOLFE. If it did we would find something else.

LIBRARY OF SURGEON GENERAL'S OFFICE.

Mr. ANTHONY. The next item is the library of the Surgeon General's Office, for which you are asking \$25,000, an increase of \$5,000 over the current appropriation.

Col. WOLFE. That is due to the increased cost of the books and periodicals which are being received there. All the prices have gone

up; journals which formerly cost \$3 have gone to \$5 and the few books we have bought have also gone up.

Mr. ANTHONY. How much of that \$25,000 do you propose to expend for subscriptions to periodicals?

Col. WOLFE. I should be very glad to furnish you with that information.

Mr. ANTHONY. And how much for permanent volumes?

Col. WOLFE. I will insert that in the record.

NOTE.—The librarian reports that \$5,000 is for periodicals and \$20,000 for books.

Mr. Sisson. Why is this not carried in the legislative bill?

Col. WOLFE. It has been in this bill for I do not know how long, sir.

Mr. Sisson. I realize that fact, but I wondered why it was carried here rather than in the legislative bill.

Gen. LORD. This is of the same character as the items in the legislative, executive, and judicial bill.

Mr. Sisson. The personnel in the library, the clerks and everything of that sort, are provided for in that bill, and the reason why I recollect about that so well is that there was a little controversy in our subcommittee about the number of translators they wanted to translate all the stuff they get in there.

Mr. ANTHONY. How much of this year's appropriation has been expended?

Gen. LORD. \$12,000 on December 1.

Mr. CRAMTON. How does this library rank among medical libraries?

Col. WOLFE. It is the second largest in the world.

Mr. CRAMTON. I understood it was a very fine library.

Col. WOLFE. Of books, journals, and pamphlets there are now over 600,000 copies in the library.

Mr. CRAMTON. Where is the first library?

Col. WOLFE. I am not informed at the moment, but I will furnish that in the record.

NOTE.—The librarian reports that the Library de Medicin de Paris, which was formerly larger than the Surgeon General's library, has now taken second place and that the Surgeon General's library is now the largest medical library in the world.

WEDNESDAY, JANUARY 5, 1921.

BUREAU OF INSULAR AFFAIRS.

STATEMENT OF COL. CHARLES C. WALCUTT, JR., ASSISTANT TO CHIEF BUREAU OF INSULAR AFFAIRS.

CARE OF INSANE FILIPINO SOLDIERS.

Mr. ANTHONY. Colonel, you are asking \$2,000 for the care of insane Filipino soldiers during the next fiscal year, and you had during the current year the same amount. Was it all necessary?

Col. WALCUTT. We have not gotten any figures in as yet, but the 1920 bills aggregated \$1,587.30.

Mr. ANTHONY. You had a deficiency of \$1,000 that year?

Col. WALCUTT. Yes; we had to ask for more money. For the current fiscal year we have had \$2,000 appropriated but have made no disbursements as yet because the bills have not been rendered.

Mr. ANTHONY. Do you think they will probably be about the same amount?

Col. WALCUTT. Yes; I do not think they will be any less.

Mr. ANTHONY. \$2,000 will surely cover the amount required?

CARE OF INSANE PORTO RICO SOLDIERS.

Col. WALCUTT. Yes. In Porto Rico they have not expended anything for three years.

Mr. ANTHONY. Nothing at all?

Col. WALCUTT. Nothing at all.

Mr. ANTHONY. You have no insane there?

Col. WALCUTT. No, sir. We have had \$100 a year for the last two years but no disbursements were made. However, I think it well to have something available.

FRIDAY, JANUARY 14, 1921.

ENGINEER DEPARTMENT.

STATEMENTS OF GEN. LANSING H. BEACH, CHIEF OF ENGINEERS; MAJ. JAMES G. STEESE, CHAIRMAN ALASKAN ENGINEERING COMMISSION; MAJ. G. E. EDGERTON, CHIEF OF SUPPLY DIVISION, AND MAJ. E. H. MARKS.

GENERAL STATEMENT.

Mr. ANTHONY. General, I believe you are Chief of Engineers?

Gen. BEACH. Yes.

Mr. ANTHONY. We are going to take up the appropriations that are asked for in this bill for the Engineer Corps this afternoon and we would like to have a preliminary statement from you as to the operations of your corps and what you propose to do for the next fiscal year.

Gen. BEACH. I would merely state that the requests we have made in our estimates are as moderate as we could possibly make them consistent with doing what we regard as absolutely essential work in the various lines concerned, of fortifications, purchase and supply, map making, and the road construction in Alaska.

Mr. SLEMP. River and harbor?

Gen. BEACH. River and harbor works also; but they are being considered by another committee. We have gone over these very carefully and have kept them at as low a limit as we felt we possibly could do and allow the different operations for which they are to exist and continue. The officers in charge of the different branches, Col. Steese, Maj. Edgerton, and Maj. Marks, are all here and they can give you the details.

Mr. ANTHONY. Gen. Beach, how have you made your estimates for the Engineer Department for the next fiscal year—on the basis of an Army of 280,000 men?

Gen. BEACH. No, sir; they were made on the basis of the Army that existed on the 1st of July, which is about 190,000.

Mr. ANTHONY. How did it happen you did not base your estimates upon the policy of the War Department, which is to increase the Army during the present fiscal year and the next fiscal year to its maximum of 280,000?

Gen. BEACH. The Army was at that figure at that time, and we were not certain how the recruiting would be and what the number would actually be, and we did not feel that we were justified in making a larger estimate than for the forces that were actually in existence at that time.

Mr. ANTHONY. You figured that on the basis of 190,000 men?

Gen. BEACH. About 190,000 men.

Mr. ANTHONY. So that if appropriations should be made for an army, say, of 155,000 or 150,000 your appropriations could be cut down still further?

Gen. BEACH. In some cases.

Mr. ANTHONY. We will develop that as we go along.

Mr. SLEMP. Most of it, I should think, would be constant factors.

Gen. BEACH. A good many of the purchases and supplies would be, but other matters, like map making and road construction in Alaska, are entirely independent of the size of the Army and those should stand as submitted.

Mr. ANTHONY. Have you allowed, in making up your estimates, for new material or utilizing all the war surplus that has accumulated?

Gen. BEACH. Yes, sir; as far as possible.

Mr. ANTHONY. So that you are making no new purchases of material of which you have a store on hand?

Gen. BEACH. Not where it is practicable to use anything that is already in our possession or in possession of the Government and can be transferred to us.

Mr. ANTHONY. All right, go ahead with your statement.

Gen. BEACH. That was about all I wished to say.

Mr. SLEMP. Before you leave; this is one of the small items in the bill, is it not, only amounting to \$2,450,272?

Gen. BEACH. Quite small; yes, sir.

Mr. SLEMP. Still that is nearly seven times what it was in 1912 and 1914 and eight times what it was in 1916?

Gen. BEACH. There is one pretty large item in there.

Mr. SLEMP. That is the Alaska business.

Gen. BEACH. No, sir; another one, the engineer depot.

Mr. SLEMP. Will you just explain that?

Gen. BEACH. I would only say that there is only one large item in there, about \$300,000, which we understand will be cared for by other agencies and therefore will be omitted. Maj. Edgerton will explain that.

Mr. ANTHONY. Which one is that?

Maj. EDGERTON. That is not included in that Book of Estimates, sir. That is the estimate for Engineer depots. Our activities under Engineer depots will be largely increased by taking away certain activities from the Quartermaster Corps and transferring them to us.

Mr. ANTHONY. That is, you are going to care for your own technical supplies?

Gen. BEACH. Yes, sir.

Maj. EDGERTON. But we had contemplated until very recently it would be necessary to increase the appropriation for Engineer depots.

but we are advised now it will not be necessary, and it will be transferred from Quartermaster appropriations.

Mr. CRAMTON. Generally speaking of your estimates, General, as of what period were they made up—what time?

Gen. BEACH. For the 1st of last July; the Army as it existed the 1st of last July.

Mr. CRAMTON. To what extent have you figured on changed and probably lower costs of labor and material in these estimates?

Gen. BEACH. That has not been taken into account to any very large extent, because at the time these estimates were submitted, which was last summer, it was practically impossible for us to foresee.

Mr. CRAMTON. They are based on costs about last July?

Gen. BEACH. Yes, sir. With regard to the changed conditions, I would state that that is reflected more decidedly and perhaps in better shape in our river and harbor work than in work of this kind, and to show the change that has taken place I would state that on our construction of the Wilson Dam at Muscle Shoals the turnover of labor during 1919 and the first half of 1920 was about 40 per cent a month. In September things began to change; the turnover dropped to 35 per cent in September, 1920; in October it was 25 per cent, and in November it dropped to 15 per cent. That means that we get better men and a corresponding increase in efficiency.

Cement has dropped about a dollar a barrel from what it was during the time of highest prices.

Mr. CRAMTON. Do you note in your Government work a perceptible increase in the amount of labor that the men perform within a given period? For instance, in automobile plants in Detroit very recently there was a cutting down process of forces, and a smaller number of men, it speedily developed, accomplished a greater production in the same time. Now, with your lessened turnover, indicating a greater stability of the force and greater desire to hold their jobs, have you noticed a perceptible improvement in their output?

Gen. BEACH. Yes, sir; there has been an increase in efficiency which is noticeable, but I would be unable to give you the exact percentage, because on our work it would be very difficult to determine that without having special observations and detailing parties expressly for the purpose of obtaining that information. But there is no question about it that the efficiency has greatly increased.

Mr. CRAMTON. Of course, we will take that up more in detail with others as we come to different items.

Mr. ANTHONY. Are you through with that?

Mr. CRAMTON. Yes.

Mr. ANTHONY. General, the Engineer Corps is utilizing Camp Humphrey exclusively now, is it?

Gen. BEACH. Yes, sir.

Mr. ANTHONY. There are no other activities there now?

Gen. BEACH. There are no other activities there now.

Mr. ANTHONY. What do you carry on there at Humphreys?

Gen. BEACH. The Engineers school is there, and that is almost the only activity that is being carried on at that point. We have some troops stationed there, but they are used very largely for the instruction of the officers, and, of course, the ordinary purposes of garrison duty.

Mr. ANTHONY. That plant was built to accommodate how many thousand men?

Gen. BEACH. I do not know, sir, how many men that was originally intended to contain, because that was built before I was Chief of Engineers.

Mr. ANTHONY. What I wanted to get at, is there room at Camp Humphreys for any other military activities in addition to those carried on by engineers?

Gen. BEACH. As far as the area of the ground is concerned, there is.

Mr. ANTHONY. I mentioned that because the War Department seems to be maintaining a number of large camps in the vicinity of Washington, such as Camp Meade, Camp Eustis, and several others. It seemed to me that perhaps we should concentrate more of them in one camp, instead of spreading out. Are you tearing down many of the old buildings at Humphreys?

Gen. BEACH. No, sir; we have not had force enough to do that. Most of them are still standing.

Mr. ANTHONY. In what state of repair are they now?

Gen. BEACH. Fair. They have not had much done to them, but they were pretty substantially constructed for that class of buildings, and they are still standing in very good shape.

Mr. ANTHONY. Did you complete the work of construction of the bungalows for the use of officers in the school?

Gen. BEACH. There were a number of them built, but I do not think there were as many built as they originally contemplated.

Mr. ANTHONY. Are you asking any money this year for new construction there in connection with that school?

Gen. BEACH. I do not think so.

Maj. EDGERTON. Not in our appropriation. The Construction Division is carrying an item, I believe, for that.

CIVILIAN ASSISTANTS TO ENGINEER OFFICERS.

(See p. 1007.)

Mr. ANTHONY. Before you go, General, I just happened to see the paragraph here of civilian assistants to Engineer officers, where you are asking for \$60,000 for the next fiscal year for civilian assistants, and you were given \$40,000 during the current year. Why do you need the additional number?

Gen. BEACH. I would like to have Maj. Marks explain that.

Maj. MARKS. Mr. Chairman, we want this appropriation for a small nucleus of employees in each of the corps area Engineer offices and the outlying departmental offices. You can divide that figure by 12, and you see how many offices we have to supply.

Mr. ANTHONY. Right there, this is an expense that is forced upon you by the new tactical organization of the Army, is it not?

Maj. MARKS. Partly so, yes, sir; but when we were cut down to \$40,000 last year we dropped, as I remember, \$30,000 below what it was in 1916. It had been brought up in 1916 to correspond to the new departments created at that time—the Northeastern and the Southeastern.

Mr. ANTHONY. Why do you have to maintain active Engineer organizations in each one of those corps areas?

Maj. MARKS. That is merely to carry on the routine duties. Say, a department engineer would be given some studies to make of what he would do in case of an industrial disturbance—say, to study out the water supply of the city, or some studies in connection with the operation of the railroads, or any of those interarea studies he has to carry out. This appropriation of \$60,000 is less than \$6,000 per area and will not provide a great number of employees.

Mr. ANTHONY. How large are the engineering activities that you have to carry on at each division headquarters?

Maj. MARKS. At each division headquarters the activities are carried on entirely by the military personnel and concern merely the work in that divisional camp, as at Camp Meade or Camp Dix. They are only concerned with operations at their particular camp.

Mr. ANTHONY. Do you have any Engineer organizations connected with each division?

Maj. MARKS. An Engineer regiment.

Mr. ANTHONY. Will be connected with each division?

Maj. MARKS. Yes, sir.

Gen. BEACH. You really referred to the corps area, did you not?

Mr. ANTHONY. Both of them. But this corps area you speak about that you need this civilian force for is something new, then.

Gen. BEACH. Not entirely. The same organizations existed in the departments formerly. We had engineer officers, department engineers. Now we have corps area engineers and they have to make reports concerning engineering features, plans for prevention of interruption of railroad traffic, and matters of that kind, and they have to have practically a draftsman and a clerk at least at each point.

Mr. ANTHONY. Does this new tactical organization that has been worked out of dividing the country up into corps areas and dividing the Army into divisional commands in this way enforce any new and divisional activities on the Engineer Department?

Gen. BEACH. No, sir; no new activities.

Mr. ANTHONY. Additional activities?

Gen. BEACH. No, sir.

Mr. SLEMP. If you have a different organization in each corps area that does necessarily mean more expense, does it not?

Gen. BEACH. No, sir; the corps area engineer now has practically the same duties that the department engineer had before, but there are more corps areas, and, consequently, there is an increase in the number of engineer officers in the corps areas.

Mr. ANTHONY. That answers my question. Then it calls for increased activities of your corps.

Gen. BEACH. I misunderstood the use of the word "activities." It calls for more officers, but, as I understood the word "activities" to mean new lines of work. The duties are the same as before.

Mr. ANTHONY. More civilian clerks?

Gen. BEACH. Yes.

Mr. ANTHONY. That was all I had.

Have you any general questions you want to ask, Mr. Dent?

Mr. DENT. No; I am sorry I could not get here at the beginning.

Mr. SLEMP. Have you in mind the total amount of money esti-

mated by the Engineer Department in the various branches of the military service?

Gen. BEACH. That I would have to look up. I can give that to you.

Mr. SLEMP. That is, how much money are you asking the Government to spend in the Engineer Department?

Gen. BEACH. Altogether in the military service?

Mr. SLEMP. Yes.

Gen. BEACH. I can give you that.

Mr. SLEMP. Subdivided?

Gen. BEACH. Yes.

Mr. SLEMP. All right.

(The statement referred to was later furnished and is here printed in full, as follows:)

The estimates submitted by the Chief of Engineers for the fiscal year 1922, excluding items for civil works, are as follows, subdivided by classes of items:

Legislative, executive, and judicial bill, salaries, office of Chief of Engineers (statutory roll).....	\$130, 910
Army bill.....	2, 350, 470
Fortification bill:	
Fortifications in continental United States.....	\$1, 987, 390
Fortifications in insular possessions.....	1, 005, 540
Panama fortifications.....	612, 250
	----- 3, 605, 180
Total.....	6, 086, 360

While the estimates in the fortification bill are submitted by the Chief of Engineers they are not for support or maintenance of the Engineer Department, but are for construction and maintenance of fortifications which are manned and operated by the Coast Artillery.

CONSTRUCTION AND MAINTENANCE OF MILITARY AND POST ROADS ETC., ALASKA.

Mr. ANTHONY. We will go ahead with the details of these various subheads. What do you want to take up, Alaska now?

Maj. STEESE. Yes; that is the last item.

Mr. ANTHONY. Page 97 of the bill.

Major, will you give your name and status to the stenographer please?

Maj. STEESE. Maj. James G. Steese, Corps of Engineers, president of Board of Road Commissioners for Alaska.

Mr. ANTHONY. Does the construction and maintenance of military post roads, bridges, and trails in Alaska come in charge of the Engineer Department?

Maj. STEESE. The construction and maintenance of military post roads, bridges, and military trails in Alaska is handled by the board of road commissioners for Alaska operating under an act of Congress approved January 27, 1905. This board operates by order under the Secretary of War and has been placed by him under the general supervision of the Chief of Engineers. The board at present is composed of three officers of the Corps of Engineers of the Regular Army.

Mr. ANTHONY. We used to have an officer of the Army detailed in Alaska. What was his name?

Maj. STEESE. Gen. Wilds P. Richardson.

Mr. ANTHONY. Is there anybody serving now in a similar capacity?

Maj. STEESE. I have succeeded Gen. Richardson as the head of the commission. I am the president of the newly organized commission.

Mr. ANTHONY. Now, you are asking for the next fiscal year for \$955,000 for construction and maintenance of military post roads, bridges, and trails in Alaska?

Maj. STEESE. Yes, sir.

Mr. ANTHONY. And there was appropriated \$350,000 during the current fiscal year. Has all of the \$350,000 that has been appropriated for this year been used?

Maj. STEESE. It has all been obligated. Up to December 1 when the last set of vouchers went in \$245,211.94 had actually been expended, and there were on that date outstanding liabilities of one hundred and twenty-eight thousand odd dollars.

Mr. ANTHONY. So that all of the appropriation will be absorbed?

Mr. SLEESE. All of the appropriation will probably have been spent by the time I get the vouchers for December.

Mr. ANTHONY. What is the argument for the increased appropriation for the next fiscal year?

Maj. STEESE. I have that information. Shall I give that?

Mr. ANTHONY. Not in detail, but generally tell us what you propose to do.

Maj. STEESE. I might say that prior to the organization of this board, in 1905, there were in the whole of the Territory of Alaska less than one dozen miles of wagon roads and a few hundred miles of pioneer trails, mostly constructed by the War Department.

The existing projects we are now working on require primarily the maintenance and improvement of the present system of roads and trails aggregating about 4,800 miles in length and such new construction as funds will permit. That is, in 15 years the project has grown to nearly 5,000 miles as a total expenditure of slightly over \$5,000,000, 40 per cent of which originated with the Alaska fund, which is a local Federal fund made up of vocational and trade license taxes in the territory.

The original plan of providing the money necessary for this work authorized the expenditure of 70 per cent, later reduced to 65 per cent, of this Alaska fund. This fund proved so inadequate from the start that the matter was taken up by the Secretary of War with Congress and an appropriation of \$150,000 in aid of the work was made for the fiscal year 1907 and appropriations have been made yearly ever since.

Mr. Sisson. What authority was there for that appropriation in law?

Maj. STEESE. I did not quite understand the question.

Mr. Sisson. Was that appropriation authorized? The item was placed in some appropriation bill, no doubt.

Maj. STEESE. The item was placed in the bill.

Mr. Sisson. But was there any authority in law for that?

Maj. STEESE. For submitting the item?

Mr. Sisson. Yes.

Maj. STEESE. No, sir; not for submitting the item.

Mr. DENT. As a matter of fact, somebody raised a point of order.

Maj. STEESE. A point of order was several times raised and finally settled some three or four years ago. That I will come to in just a moment.

For 1917 and 1918, the two fiscal years just prior to entering the war, the annual appropriations in the Army act were \$500,000 each year, and with that year the present system was well launched under the very able management of the Richardson commission.

During the war Gen. Richardson was sent overseas and three emergency officers were placed on the commission, and the appropriations were cut down to \$100,000 per year. As a result of this great reduction in appropriations, much less money than was necessary even to keep the system alive, the system has suffered greatly and large stretches of it have fallen into a bad state of repair and are impassable.

Mr. Sisson. Were those roads rendered impassable by use or just by deterioration?

Maj. STEESE. By disuse; storms and floods and lack of yearly maintenance.

Mr. Sisson. The roads were not worn out, then, by use?

Maj. STEESE. It is a combination. Some of them were cut up by motor trucks and the necessary repairs not being made, the damage became greater.

Mr. Sisson. I am wondering to what extent those roads are actually used with about 60,000 population scattered all over that Territory.

Maj. STEESE. I have some figures on that. The roads and trails constructed by the board have not only opened up to the Government nearly all the sections of the Territory, but have effected large savings in freight charges. Data collected by the board in 1915 indicated that the direct saving in cost of transportation of freight during that year due to the construction of roads by the board was \$2,144,667. That is, from the freight that actually moved over the roads charges were reduced by \$2,000,000.

Mr. Sisson. What character of freight was hauled, generally?

Maj. STEESE. Well, machinery and supplies for mines, subsistence supplies, forage, lumber; everything in the way of supplies in and, of course, the local products, ore and one thing and another going out. There is also considerable travel of personnel in the changing seasons.

APPROPRIATION BY GOVERNMENT OF ALASKA.

Mr. Sisson. How much does the government of Alaska contribute to these roads?

Maj. STEESE. The Territorial Legislature appropriated, two years ago, \$400,000, that is \$200,000 a year, of which about half was turned over to us for expenditure, and the expenditure, of course, was by

Mr. Sisson. That is about \$100,000.

Maj. STEESE. Last year it was \$101,184.56. That, of course, was spent primarily on maintaining feeder lines tying into a general military and post system for which we are responsible.

Mr. Sisson. Did Congress adopt any highway plan to bind the Federal Government to a development of the good roads in Alaska?

Maj. STEESE. As I said before, the appropriations have been made every year since 1907.

Mr. Sisson. I understand that it might be done by appropriation by a scheme devised by the Secretary of War or some official of the Government for which Congress might make an appropriation which, of course, would be subject to a point of order.

Maj. STEESE. Yes.

Mr. Sisson. But what I am endeavoring to get at is has any definite plan been devised or are we just floundering along from year to year?

Maj. STEESE. No; the plan has been in existence all through.

In 1918 the Secretary of War wrote a letter in which he stated that he would not submit further estimates for the extension of this work unless specifically authorized to do so. As a result, the Army appropriation act approved July 9, 1918, contains the following provision:

For the construction, repair * * * *Provided*, That hereafter so long as the construction and maintenance of "military and post roads" in Alaska, and of other roads, bridges, and trails in that Territory, shall remain under the direction of the Secretary of War, he be authorized to submit such estimates for the consideration of Congress as are, in his judgment, necessary for the proper prosecution of the work.

Since 1918, therefore, the War Department has been definitely charged with the responsibility of submitting estimates for the proper prosecution of this work.

In 1913 after a general overhauling of the situation the board submitted a recommendation that \$7,250,000 be appropriated during the next 10 years so as to provide Alaska with a complete road system, such as immediate needs justify and probably sufficient to meet all reasonable demands until the Territory shall be sufficiently developed to take over internal public works as a part of its own government. The above estimate was to provide for:

- (a) The maintenance of the existing routes.
- (b) Completion of the projects already undertaken.
- (c) Completion of projects already approved, but not yet undertaken.
- (d) Completion of projects likely to arise with the development during the succeeding 10 years.

Seven years of that 10-year period have now elapsed, and the appropriations have actually averaged only about half of the \$725,000 per year recommended. During the two war years, appropriations were only one-fourth of the amount recommended. In addition, Alaska received a very severe setback during the war and has been prevented by Government restriction from developing her own internal resources to the extent contemplated in 1913.

As a result, large sections of the system have not been kept in repair and some sections have become impassable. During the last fiscal year money was spent on less than one-half of the total mileage.

The present board, in addition to the foregoing considerations, must figure also upon the new elements in the problem:

- (a) Increased cost of labor, material, and supplies.
- (b) Reconstruction and rehabilitation of a large proportion of old projects.
- (c) The need for a road so surfaced as to stand light truck traffic.
- (d) Necessity for a system of feeders to Government railway.

Last June an interdepartment committee, organized by Secretary of the Interior Payne, reported that: "The construction of wagon roads and trails is one of the most important and urgent needs of Alaska. Without the construction of a large mileage of wagon roads and trails the resources of the Territory can not be made available. Nothing will contribute more to development of tonnage for the Government railroad than a system of tributary wagon roads."

The committee recommended among other things that:

"Congress be asked to make an annual appropriation of not less than a million dollars for the construction and maintenance of roads and trails in Alaska."

The annual report of our board, submitted about the same time, included estimates for the next fiscal year for \$955,000, and the recommendation of 1913, that a program covering a period of years be authorized, was repeated. The amount now estimated for, \$955,000, can be profitably and economically expended during the next fiscal year by this board with its present organization.

Mr. SLEMP. That is, Congress has appropriated about three and one-half million dollars.

Maj. STEESE. I can give you the figures on that, sir.

Congressional appropriations of \$1,940,000 and then enough of the Alaska fund was available to bring that to something over two and one-half million dollars, which is roughly half of the estimate.

Mr. CRAMTON. For a period of 14 years?

Mr. STEESE. Seven years. The estimate for 10 years was seven and one-quarter million dollars, so for seven years it would be about \$5,000,000.

Mr. SLEMP. Are you going to put in the record there the plan that was presented in 1913 for the expenditure of this \$5,000,000?

Maj. STEESE. I can get that from the 1913 report, but we have revised that as of this year.

Mr. SLEMP. Have you extended the plan?

Maj. STEESE. Revised the plan.

Mr. SLEMP. How many miles were contemplated in 1913?

Maj. STEESE. I have not the mileage for that. In fact, I have never gotten a detailed estimate of that as the records were all burned in the fire of 1916. All we have is an epitomized statement in the 1913 report giving these figures and these items I have just given. I can amplify that if you desire.

Mr. SLEMP. Perhaps we ought to have continuity in the development of Alaska as far as road building is concerned. So you can say you have got so far along this line.

Maj. STEESE. That is exactly what I have done and it is in this report on page 61.

Mr. CRAMTON. The figures you just gave in which you said \$2,000,000 had been appropriated by Congress in seven years would average a little less than \$290,000 per year?

Maj. STEESE. Yes, sir.

Mr. CRAMTON. I note from the figures I have in hand that varies from \$100,000 to \$500,000?

Maj. STEESE. Yes, sir; it was \$500,000 for the last two years prior to the war for each year.

Mr. CRAMTON. This item you are now asking, \$955,000, can you divide that into the several classes you have mentioned, the amount to be used for repair of existing and completed roads, the amount to be used in construction of new roads, etc.?

Maj. STEESE. I have that epitomized.

Mr. CRAMTON. You are asking about twice what Congress has ever heretofore given you and I would be glad to know what part of that is for repair of completed roads.

Maj. STEESE. I can figure that out. I have a little explanation of that in the report that I think will give you the general idea and I can reduce it to exact figures later if you desire.

MAINTENANCE AND REBUILDING OF ROADS.

Mr. CRAMTON. Is not your estimate simply an addition of these figures? When you make an estimate to Congress do you not figure out we need so much for repairs and so much for construction of these projects? Have you not those items right at hand?

Maj. STEESE. I have the estimate for this year, 1922, on page 55.

Mr. CRAMTON. \$955,000.

Maj. STEESE. Yes, sir.

Mr. CRAMTON. That I assume is just the sum of certain items?

Maj. STEESE. Yes, sir; the items are all given in detail on pages 55 and 56.

Mr. CRAMTON. But not having the knowledge of the local situation I can not tell whether that estimate was for new construction or repair or what.

Maj. STEESE. As a general statement, very little of it is new construction. The great mass of it is, first, maintenance of what we have got, and, second, rebuilding these large sections that have been washed out or have fallen into disrepair.

Mr. CRAMTON. So without any additional new construction——

Maj. STEESE. With no new mileage.

Mr. CRAMTON. With no new mileage—when you speak of new mileage you mean—what is the best type of road you build?

Maj. STEESE. Wagon road.

Mr. CRAMTON. And when you speak of project it is the building of wagon roads?

Maj. STEESE. No, sir; a great deal of these estimates are for merely a sled road to get over with dog team, some of it for merely pack trails. So I might state of our 4,890 miles which we are maintaining to-day, 1,031 miles are now passable for automobiles.

Mr. CRAMTON. Maybe I can get it in this question. When you speak of new mileage you mean that there are no miles of road which you expect to put in better condition if you are given this appropriation than they have ever been before?

Maj. STEESE. Oh, yes, sir; some of that appropriation will put miles into better condition than they ever were before, because they have never been completed up to date. For instance, take our main military highway from Valdez to Fairbanks, why, we can get over all of that mileage except one section——

Mr. CRAMTON. You can get through it in some sort of way.

Maj. STEESE. You can get through it in some sort of way with a light Ford truck or light automobile.

Mr. CRAMTON. And part of it has been surfaced?

Maj. STEESE. Yes.

Mr. CRAMTON. The balance of it is in your project but has never been surfaced?

Maj. STEESE. Yes, sir.

Mr. CRAMTON. Do you not consider that new construction?

Maj. STEESE. It is new construction in that sense, but not new mileage. That is the point I was getting at, what you meant exactly by your question. Some of these are for new mileage.

Mr. CRAMTON. Here in the District, for instance, we appropriate for the repair of a pavement, an existing pavement. It may be in very bad condition and we appropriate for its repair.

Maj. STEESE. Yes, sir.

Mr. CRAMTON. We authorize an item for new paving. It is not new mileage. The street was there and it is simply putting a new surfacing on. Now in this item what extent do you figure on new surfacing and then new construction where you have not surfaced before?

Maj. STEESE. That is a figure that to give you exactly I will have to go back and separate the figures.

Mr. ANTHONY. Now, let me carry on Mr. Crampton's questions just a second. I think you had better put in the record at this point, Colonel, a little of the itemization of your estimate of funds for 1922.

Maj. STEESE. Yes, sir.

Mr. ANTHONY. But I want you to further elaborate on that by putting after the name of each road here whether it is new construction or whether it is repair of old construction, and the mileage of each road, so that Congress when it has this item before it can look in the record and see how many roads you propose to repair, what roads you propose to build anew, and the mileage of each.

Maj. STEESE. Yes, sir; I can figure that quite readily.

Mr. Sisson. While doing that would it be any trouble to put in by number the most important ones? In other words, the ones you would prefer if Congress does not see fit to give you the full amount, first in importance, second in importance, and third in importance?

Maj. STEESE. I can do that with the explanation that such a classification now can not be taken as absolute, because we do not know what the floods are going to do to us next year or what emergency conditions we may have to meet during the coming year, but with that exception we can state what at this particular time—

Mr. Sisson. There are going to be some roads over there that are preferable to be built?

Maj. STEESE. Yes, sir.

Mr. Sisson. Then if Congress does not see fit to give you the entire amount or the committee to recommend the entire amount we will have some guide and not act blindly in the reductions to be made.

Maj. STEESE. Yes, sir.

Detailed statement of proposed distribution of estimate of \$955,000 for fiscal year ending June 30, 1922.

GENERAL SUMMARY.

For repair and maintenance of 904 miles of wagon road, 519 miles of sled road, and 678 miles of trail, as per detailed statement below, necessary to hold existing system and prevent further deterioration.....	\$370,000
For improvement of intermediate sections of routes included in I, necessary to enable existing through routes to be utilized throughout by the same class of traffic.....	300,000
For new construction necessary to raise the classification of existing routes, provide additional mileage, and for surveys and reconnaissance, 640 miles in order of importance as listed below:	
Lignite-Kantishna (76 miles).....	\$65,000
Wasilla-Willow Creek (10 miles).....	10,000
Talkeetna-Cache Creek (34 miles).....	95,000
Ruby-Poorman (26 miles).....	30,000
Gulkana-Chistochena (16 miles).....	28,000
Fort Yukon-Circle (125 miles).....	15,000
Kuskokwim Reconnaissance (250 miles).....	10,000
Government Railroad to Valdez Creek (70 miles).....	5,000
Wide Bay to Becharof Lake (10 miles).....	5,000
Haredeen Bay-Portage (10 miles).....	10,000
Skagway-White pass (13 miles).....	9,000
	<hr/>
Total.....	\$955,000

Detailed statement.

Southeastern Alaska:

Skagway-White Pass (13½ miles of road)..... \$10,000

\$1,000 for repair and maintenance of existing 2½ miles and

\$9,000 for extension of 11 miles to International Boundary.

Haines-Chilkat (47½ miles of road)..... 40,000

\$30,000 for repair and maintenance of existing road and

\$10,000 for improvement.

Juneau local roads (30 miles of road and 14 miles of trail)..... 5,000

Total expenditure for repair and maintenance of existing roads and trails.....

\$55,000

Southwestern Alaska:

Seward-Kenai Lake Road (10 miles of road and 4 miles of trail). 5,000

\$2,000 for repair and maintenance of existing mileage and

\$3,000 for improvement of interior 4 miles to road standard.

Mile 28-Sunrise Road (46 miles of road and 34 miles of sled road). 3,000

Total expended on repair and maintenance of existing mileage.

Talkeetna-Cache Creek Road (6 miles of road and 24 miles of trail)..... 100,000

\$5,000 for repair and maintenance of existing mileage and

\$95,000 for improvement from trail to road standard necessary to open up the Cache Creek district as an important feeder to the Government railroad.

Haredeen Bay-Portage (10 miles of trail)..... 10,000

Entire sum for reconnaissance and new construction, to provide a short route across the Alaska Peninsula into the Bristol Bay district.

Wasilla-Willow Creek (36 miles of road and 2 miles of sled road). 20,000

\$10,000 for repair and maintenance of existing mileage and

\$10,000 for improvement and extension into the important Willow Creek mining district tributary to the Government railroad.

Palmer-Mile 26 (9 miles of road and 2 miles of sled road)..... 20,000

\$10,000 for repair and maintenance of existing mileage and

\$10,000 for improvement to uniform road standard in the

Matanuska agriculture district..... 158,000

Valdez-Chitina-Fairbanks Road (410 miles of road and 55 miles sled road)..... 250,000

\$190,000 for repair and maintenance of this main military highway, and \$60,000 for additional surfacing and improvement to uniform standard. A large amount of reconstruction is necessary on this road to repair the damage and deterioration during the lean war years.

Copper River Valley:

McCarthy-Nizina River (6 miles of road and 4 miles of sled road). 15,000

\$5,000 for repair and maintenance of existing mileage and

\$10,000 for improvement.

Gulkana-Christochena (4 miles of road and 16 miles of trail)... 30,000

45,000

\$2,000 for repair and maintenance of existing mileage and

\$28,000 for new construction necessary to extend this route eventually to the important Slate Creek mining district.

Yukon district:

Fairbanks-Fort Gibbon Sled Road (148 miles of sled road)..... 5,000

Entire amount for repair and maintenance of existing mileage.

Circle-Chatanika (49 miles of road and 81 miles of sled road)... 80,000

\$15,000 for repair and maintenance of existing mileage and

\$65,000 for improvement of intermediate section of sled road to wagon road standard, thereby providing upper Yukon district with wagon road to the Tanana Valley and the Government railroad.

Yukon district—Continued.

Fort Gibbon-Kaltag Trail (257 miles of trail).....	\$3,000
Entire \$3,000 for repair and maintenance of existing mileage.	
Fort Gibbon-Koyukuk Trail (100 miles of trail).....	2,000
Entire amount for repair and maintenance of existing mileage.	
Salchakit-Caribou Creek Road (46 miles of sled road).....	1,000
Entire amount for repair and maintenance of existing mileage.	
Ruby-Poorman (30 miles of road and 26 miles of trail).....	40,000
\$10,000 for repair and maintenance of existing mileage and \$30,000 for improvement and extension into the Poorman mining district.	
Coldfoot-Wiseman sled road (11 miles of sled road).....	3,000
Entire amount for repair and maintenance of existing mileage.	
Ophir-Tacotna Road (7½ miles of road and 17 miles of trail)....	30,000
\$5,000 for repair and maintenance of existing mileage and \$25,000 for improvement of intermediate section of trail to uniform road standard.	
Fairbanks local roads (65 miles of road).....	8,000
Entire amount for repair and maintenance of existing mileage.	
Rampart-Hot Springs (15½ miles of road and 21 miles of sled road).....	30,000
\$5,000 for repair and maintenance of existing mileage and \$25,000 for improvement of intermediate sled-road section to uniform wagon-road standard.	
Eagle-O'Brien Creek Road (19 miles of road and 40 miles of sled road).....	30,000
\$5,000 for repair and maintenance of existing mileage and \$25,000 for improvement of sled-road and trail section to uniform road standard.	
Lignite-Kantishna Road (31 miles of road and 76 miles of trail)..	75,000
\$10,000 for repair and maintenance of existing mileage and \$65,000 for improvement and extension of trail to uniform road standard, necessary to connect the important Kantishna mining district to the Government railway and provide outlet for production, which has now reached considerable proportions.	
Beaver-Caro (75 miles of sled road).....	5,000
Entire amount for repair and maintenance of existing mileage.	
Fort Yukon-Circle (125 miles of trail).....	15,000
	<hr/> \$327,000

Entire amount for new construction to take care of winter travel and avoid the necessity of traveling on the frozen surface of the upper Yukon, which is extremely hazardous and has resulted in frequent loss of life.

Nome district:

Maintenance of existing roads (60 miles of road).....	20,000
Entire amount for repair and maintenance of existing mileage.	
Davidson's Landing-Kugarok (24 miles of road and 100 miles of trail).....	80,000
	<hr/> 100,000
\$10,000 for repair and maintenance of existing mileage and \$70,000 for improvement of existing trail to uniform road standard.	
Surveys and reconnoissances, Talkeetna to Kuskokwim (250 miles of trail).....	10,000
Entire amount for reconnoissance to determine best route and method of providing adequate outlet for the Kuskokwim district.	

Nome district—Continued,

Government railroad to Valdez Creek (70 miles of trail).....	\$5,000
Entire amount for reconnoissance into the Valdez Creek district, a prospective tributary to the Government railroad.	
Wide Bay to Becharof Lake (10 miles of trail).....	5,000
	<hr/> \$20,000
Entire amount for reconnoissance and preliminary work to open up an important oil development and provide a short route across the Alaska Peninsula.	
Total.....	<hr/> 955,000

BRIDGES.

Mr. ANTHONY. Do you propose to build any bridges out of this \$955,000?

Maj. STEESE. There may be several bridges, yes, sir.

Mr. ANTHONY. What will the cost of those bridges be? Are they bridges that will replace existing structures?

Maj. STEESE. There will be several bridges go in to replace bridges that have been washed out. There will be one or two bridges go in where relocation or washing out has made it necessary. In one place we have to put in two bridges to replace a single bridge, due to relocation.

Mr. ANTHONY. What will those bridges cost?

Maj. STEESE. \$15,000 or \$20,000.

Mr. ANTHONY. A year or two ago we had items like \$250,000 for some bridge.

Maj. STEESE. We have never built a bridge that cost more than \$55,000.

Mr. ANTHONY. This is practically all resurfacing of the existing roads.

Maj. STEESE. A great bulk of it.

Mr. ANTHONY. With some new construction.

Maj. STEESE. Some putting surface on where there has not been surfacing heretofore, but where such surface is necessary in a project to make it uniform all the way across. Heavy loads can not get over some sections of the road at present, so the road as a whole is not being utilized for its full possible service.

VALDEZ-FAIRBANKS ROAD.

Mr. SLEMP. Give us an idea which will be supplementary to your general statement. I would guess the distance from Valdez to Fairbanks to be about 350 miles, is that right?

Maj. STEESE. Exactly 371 miles.

Mr. SLEMP. That is a road you have already built?

Maj. STEESE. Only two-thirds of it has been surfaced.

Mr. SLEMP. When you say surfaced you mean macadamized?

Maj. STEESE. I mean simply a light gravel surface. The Valdez-Fairbanks road was our first project.

Mr. SLEMP. This is the most important?

Maj. STEESE. That is the most important project, and we estimate \$250,000 for that road, and that is our primary military item. Now, that road was passable for dog teams in 1909, in 1911 it was passable for a light two-horse buckboard, in 1913 it was passable for a light Ford car, and it still is not passable for a truck all the way through.

Mr. SLEMP. Let us get that as a sample. We will have to spend about \$250,000 a year on the part of the National Government to keep that highway in condition?

Maj. STEESE. No, sir.

Mr. SLEMP. How much do you suppose will be the annual maintenance charge of that road from Valdez to Fairbanks?

Maj. STEESE. It will require \$250,000 a year for the next three or possibly four years to finish it; that is, to have it gravel surfaced throughout. After that the annual maintenance on that road should cost about—well, I am including there the branch down to Chitina, a total of 410 miles, of \$200 a mile, which is something like \$80,000.

Mr. SLEMP. You mean the annual maintenance charge after the next three years?

Maj. STEESE. After the next three years should be about \$80,000.

Mr. SLEMP. \$80,000?

Maj. STEESE. For 410 miles.

Mr. SLEMP. Now, the 5,000 miles that you mention as being the road project for Alaska, how many miles do you put in the same class as you put the Valdez-Fairbanks road?

Maj. STEESE. About 1,031.

Mr. SLEMP. About 1,000 miles?

Maj. STEESE. About 1,031.

Mr. SLEMP. For the development of the Territory you would need about 1,000 miles of surfaced roads?

Maj. STEESE. About.

Mr. SLEMP. Your estimate, then, of \$200 a mile would mean that an annual charge of upkeep would be about \$200,000?

Maj. STEESE. If it is all in that condition, yes.

Mr. SLEMP. How much is it going to take to get it all in that condition?

Maj. STEESE. Well, I have not that figure offhand.

Mr. SLEMP. I note from the map it would be little branch roads out from the centers of population—short distances scattered all over Alaska apparently.

Maj. STEESE. Well, in addition to that 1,000 miles of wagon roads we have there over 3,000 miles of trails.

Mr. SLEMP. I understand that. I will come to that later. Let us take 3,000 miles of trail. You have already got that pretty well dug out, have you not? It is mainly maintenance?

Maj. STEESE. The original work has been done for some time on all of them; some of it has had no maintenance work for many years; some is in good shape to-day; a good deal will need actual rebuilding.

Mr. SLEMP. What will be the annual charge there?

Maj. STEESE. Some of that trail should be improved to give proper service to the communities involved in my program as given in the report.

Mr. SLEMP. Congress gave \$500,000 last year and \$500,000 the year before. If that appropriation ran along on the \$500,000 basis as a sort of standard basis of appropriation on the part of Congress, what would that do for the roads of Alaska? That would take care of the 1,000 miles

Maj. STEESE. No; that would slow down the improvement of it all to this same standard. We first have to take out enough money to hold what we have, then part of the balance goes into improving the grade of the road—that is, from sled road to wagon road standard—and then part of it surfacing the existing wagon road to stand light trucks.

Mr. SLEMP. Your theory would be to spend about a million dollars a year for three or four years and then you could by an expenditure of \$500,000 after that keep those roads in fairly good condition?

Maj. STEESE. In our project here we make the statement in the program as we have drawn it up a million dollars a year for 10 years would complete everything that will probably develop in that time. After that the maintenance would be at less than \$500,000 a year.

Mr. SLEMP. I do not believe that.

Maj. STEESE. The mere maintenance with no extensions.

Mr. SLEMP. \$200 a mile and other things. I would not think that would be sound, would you?

POPULATION OF ALASKA.

Mr. Sisson. What is the population of Alaska now—about 50,000?

Maj. STEESE. The last census gave 55,000; that is, the 1920 census.

Mr. Sisson. And \$1,000,000 a year is over \$20 per capita for roads, an annual expenditure of \$20 per capita. If Uncle Sam were to undertake to spend that much per capita in America—

Mr. ANTHONY. But that is the argument upon which Alaska asks us for it. It has a sparse population and a large territory.

Maj. STEESE. There are other elements in there besides population. That population is scattered over a territory one-fifth the size of the United States and it is 12 times the size of the State of New York, and 98 per cent of it is owned by the Government. It is public domain 98 or 99 per cent.

Mr. Sisson. I wonder if we could not give it all away to somebody?

Mr. SLEMP. No, sir.

Maj. STEESE. You know \$1,000,000,000 worth of products have come out of that country since it belonged to the United States. It passed the billion mark this year.

WORK COMPLETED.

Mr. ANTHONY. Will you put in the record, Colonel, a short statement showing the number of miles of main road that has been completed since this Government aid was extended, and the number of miles of trails and subsidiary roads so as to show in a short paragraph just what has been accomplished so far under this program?

Maj. STEESE. Well, those figures, I can give you right off, sir.

	Miles
Wagon roads.....	1, 031
Sled roads.....	636
Trails.....	3, 223
Total.....	4, 890

In the classification of the board wagon roads are any roads cleared, grubbed, ditched, graded, and drained sufficiently to accommodate wagon traffic. Light motor vehicles are now using these roads in increasing numbers. This requires a

gravel surface at an increased first cost, but with an eventual saving in annual maintenance charges.

Sled roads are cleared and graded like wagon roads but not rubbed. They are drained only sufficiently to prevent their destruction by the summer rains. Their wearing surface is of snow. Double bobsleds, drawn by two, four, etc., horses haul heavy loads over these roads in wintertime.

Trails include any construction less than the above, suitable for dog sled or single horse drawn double-enders in winter and pack trains in summer. Except when river surfaces are used, some work is always necessary to permit the use of dog teams.

Mr. ANTHONY. Can you tell us—do you have anything to do with the railroad construction there?

Maj. STEESE. No, sir.

PROGRESS OF RAILROAD CONSTRUCTION.

Mr. ANTHONY. Can you tell us, just for our information, how far the railroad construction has progressed, the governmental proposition?

Maj. STEESE. Well, the railroad from Seward—of course, I have not been over all the railroad and I have not gone into their work at all there, but I have ridden over part of it, so I am not speaking as an expert on the railroad part of it.

Mr. ANTHONY. The line is not completed through from Seward to Fairbanks?

Maj. STEESE. No, sir; from Seward to Fairbanks is 476 miles. The trains were operating when I left Alaska in December from Seward to Gold Creek at mile 264, then from mile 358 on into Fairbanks.

Mr. ANTHONY. Leaving a gap of about 90 miles?

Maj. STEESE. About 90 miles.

Mr. ANTHONY. Are they constructing on that?

Maj. STEESE. A large part of that has been cleared out and a large part of it graded. I think some track has been laid in that interval but the operation does not go beyond the bridge.

Mr. ANTHONY. That leads to the question, Will the condition of that railroad relieve the necessity of road construction along the line?

Maj. STEESE. It will increase it. The railroad does not replace a road.

Mr. DENT. That was a question I had in mind, Mr. Chairman. Will you put into the record the connection between this road construction and the railroad there—what connection it has?

Maj. STEESE. Yes, sir.

Mr. DENT. I think that might be interesting.

Maj. STEESE. If you will look at that map right there you see the railroad starting down at Seward, and we have two short lines of road into Seward, a trail running up and out to Kenai, out on the peninsula. That is an existing trail, and the development there, we think, justifies improving the trail to road standard.

Mr. ANTHONY. Are you spending money now on roads parallel to the railroad?

Maj. STEESE. No, sir; it is on feeders into the railroad.

Mr. DENT. That is the proposition I wanted; they are feeders.

Maj. STEESE. Feeders into the railroad.

The next point is up above Knik Arm; you see the points Wascana and Matanuska Junction. That is a farming district, and on up to the head of that spur line is Chickaloon, the center of the coal district.

I should have said before—and you might insert that in my previous statement back there—that the railroad is also operating about 40 miles from Matanuska Junction up to Chickaloon, in the Matanuska coal fields and north out of Fairbanks, up in the Chatanika district, which also is about 40 miles, or a total of 80 miles in addition to the figures I gave you before.

Now, up at Wassila the railroad there crosses one of our road systems, and that road swings over to the right into the Matanuska farming district and up to the branch in Willow Creek and the Archangel mining district, and you see a little gap there, a few miles; that has not yet been completed to form a connection to Palmer.

Now from Talkeetna to the Cache Creek mining district—that is off to the left from Talkeetna, up on the Susitna River——

Mr. Sisson. That is on Moose Creek?

Maj. STEESE. Talkeetna over to Moose Creek and on to Peters Creek, and then up to Cache Creek.

Mr. DENT. What is it over in Cache Creek you want to get to?

Maj. STEESE. That is a mining district, gold mining, and those operators come in over the trail. Under favorable snow conditions they can come through with dog teams, but they must have a road passable for light trucks in order to get their product out, and also also to provide business for the railroad; that is a very important project.

Mr. SLEMP. Let me ask you a question right there that might be general: What is the snow fall from Cache Creek, say, down to Talkeetna?

Maj. STEESE. I was in there on the 16th of October, and there were about 16 inches of snow then. There is anywhere from 7 to 12 or 14 feet there during the winter.

Mr. SUTHERLAND (delegate elect from Alaska). There is quite a heavy snowfall in there.

Mr. SLEMP. What portion of the year can trucks operate there?

Maj. STEESE. Well, the trucks can operate for about five months, from five to six months, depending on the season. Then, during the winter they operate with heavy bob sleds, two, four, six, or eight horse sleds, and they must have a big road for them. The snow packs down on the wagon road and serves as a sled road during the winter. At the present time they are running through there with narrow-track dog sleds.

Mr. SLEMP. That would not apply to the railroad?

Maj. STEESE. The railroad will operate all winter.

Mr. SLEMP. How?

Maj. STEESE. They have snow plows. The Copper River Railroad has been operating. As you go on up along the railroad you will see a great many other red lines tying in here; all of our projects there are tributary or tie into the railroad.

Mr. Sisson. What are these little pink lines here?

Maj. STEESE. Those are hill lines, contour lines. Where they are thick it indicates a steep hill.

COST OF LABOR.

Mr. ANTHONY. How about the labor conditions for road building in Alaska; are they favorable or unfavorable?

Maj. STEESE. The cost of labor has gone up since the war, although not relatively as in the United States; except on one project we have not had any difficulty in getting sufficient labor.

Mr. ANTHONY. What do you have to pay now for road building?

Maj. STEESE. In most of the Territory we pay \$4.50 a day.

Mr. ANTHONY. Per man?

Maj. STEESE. Per man. Up on the Seward Peninsula they pay—

Mr. Sisson. How many hours?

Maj. STEESE. That is on the eight-hour basis.

Mr. ANTHONY. Does the man board himself?

Maj. STEESE. We board them and deduct for the board, but we lose a little money on the board.

Mr. ANTHONY. Are labor conditions now as serious up there as in this country?

Maj. STEESE. They are not; we have a large number of white Americans as laborers—that is, they are miners and prospectors, who are accustomed to work at what is classed as common labor, and they work for us during the open season and then go back to mining for the rest of the year.

PROGRAM.

Mr. ANTHONY. Are you asking for this large program now, increased program, for road repair because of the fact that this work was not carried on to any great extent during the war?

Maj. STEESE. That has caused a very large item, for instance, in our Valdez-Fairbanks Road. Three years ago that was washed out through the Keystone Canyon, and we had to relocate that. We spent \$50,000 on that last year and it will take \$60,000 to finish it.

Mr. ANTHONY. Mr. Sutherland, would you care to make a statement to the committee on this item?

Mr. SUTHERLAND. I thought from my acquaintance with the projects you might care to have some information or details.

Mr. ANTHONY. The committee will not have time, probably, to go into details on all of the various projects, but we would like to hear from you on your general idea as to how much work should be undertaken at this time.

Mr. SUTHERLAND. Well, I believe the Territory requires just what is asked for here. Secretary Payne said not long ago that the Government had placed little dabs around Alaska, but particularly here with respect to roads, we have spent money all over the Territory on different projects, and now they are getting into a comprehensive system of connecting up the roads there and making some uniform system of roads in that Territory.

Mr. ANTHONY. Are your mining interests prosperous at this time?

Mr. SUTHERLAND. No, absolutely not.

Mr. ANTHONY. How about the agricultural development of Alaska?

Mr. SUTHERLAND. Agriculture is not prospering; they have been laboring under difficulties the same as the mining industry.

When you speak of the mines, the condition in Alaska in that industry is almost stagnant. We have been hoping for some relief under the McFadden bill on gold, hoping that it would be given serious consideration, but it has not. Now, these projects are largely over the mining districts, and to build some of those roads would certainly stimulate the production of gold in that Territory.

Now, if you will give me time to explain the condition in the Ruby project, I think that \$40,000 is the amount asked for—well, that is to continue a road that is now open, building it 30 miles into the interior. He does not classify it as a new road, and yet it is, because nothing has ever been done there. It is simply through the river valleys and no improvements at all. Probably the road has been placed as they propose to have the road go in the future.

Now, that road goes 30 miles to Long Creek; 26 miles beyond is the Poor Man Mining district, where I mined the last mining I did in that country. In the summer they carry their freight to the Yukon River for 2 cents a pound, but I had to pay 15 cents a pound to bring my freight 26 miles farther on a direct line, but by detour around the rivers. So that by completing that project 26 miles they would probably get their freight in there for, say, 3 or 3.5 or possibly 4 cents a pound.

And that applies to every project on this map. Just to the south of the Ruby project is the Takotna and Innoko project. There are three dredging companies, proposing to operate dredges in there, and want to carry their chief material for the dredges, the larger materials and timbers, and want to carry it that distance about 20 miles from the Innoko over to the placer fields, very large placer fields, and they are waiting for something to be done in the improvement of the roads. Now, something has been expended there, but not nearly enough to build it.

Mr. ANTHONY. Well, I think the committee has a pretty fair general idea of the conditions there, and the amount of the appropriation, of course, will be dependent upon what we think wise to expend.

Now, Mr. Grigsby, the Delegate from Alaska, has asked me to make a statement in regard to this expenditure, and if it is agreeable we will let him put it in the record.

Maj. STEESE. We have several amendments, Mr. Chairman.

Mr. ANTHONY. All right.

Mr. SUTHERLAND. May I interrupt just a moment, Mr. Chairman, to say that if the bonus on gold is not going to be allowed—and it does not look as though it was possible at this time—this is the gold remedy in Alaska, so far as the mining industry is concerned, because, if you are watching the New York stock markets you will have noticed that one or two of the largest mines in Alaska, one at Juneau, are about to collapse.

That mining company would not be affected by these roads; that depends solely on water transportation. It is the cost of labor and the price of material that is going to close that great Alaska mine down, but all over the Territory there are mines that depend entirely upon road improvement for their transportation.

Maj. STEESE. I was personally in the Kantishna district, about 30 miles north of Mount McKinley, last summer. The principal operator in there got out about 800 tons of ore last winter. He kept an assayer at the mine and sacked nothing that ran less than \$150 per ton.

Mr. ANTHONY. Because of the expense of getting that ore out?

Maj. STEESE. Yes, sir. They had to go across 31 miles of swamp where I am improving the road, but at the present time it is pretty

rough going, to the head of navigation on a little river, or, rather, a fairly good-sized river, called the Kantishna, and there the Yukon Navigation Co. and the White Pass Co. sent a boat, a paddle-wheel steamer, up this river 160 miles off of the main navigable streams, to get that ore, and then they pulled either up the Yukon to Dawson, or down the Yukon to St. Michael, and out to this country.

Mr. ANTHONY. In this country they are running ore of \$7 a ton. are they not?

Maj. STEESE. In the Juneau country they run ore running as low as \$2 a ton.

Mr. CRAMTON. Take a mining company up against that proposition. would they think it proper to build such roads as you propose?

Maj. STEESE. As we could not get to him at all, that man cut out the 31-mile drag from his mine to the river, and he got this out over the snow in the wintertime by horses and sleds.

Mr. CRAMTON. Do you have some local cooperation in such cases as that?

Maj. STEESE. On that particular project, we are improving the conditions over the road in connection with the Territory, the local funds of the Territory are turned over to us for expenditure on that project.

Mr. CRAMTON. But in different places you do have cooperation with local interests?

Maj. STEESE. Oh, yes, in some places a town will contribute some money; other places private individuals will; other places they will work on the road for a while in part payment.

Mr. Sisson. Now, is it the policy of the Government to build a road up to each of these mines, so that the miner's property will be valuable to him?

Maj. STEESE. Under the law we are required to build roads, so far as our funds permit, in the mining districts. We do not build to individual holdings. In this Kantishna district there are about 100 people in there, there is a post office there and a land commissioner: all the regular machinery—it is a little town; in fact, the condition is so bad we expect, so far as our funds will permit, to connect that town up with the Government railroad.

Mr. ANTHONY. Have you placed in the record yet, Major, a statement showing how much funds are received from the Territory of Alaska which are contributed to those road propositions?

Maj. STEESE. Yes. Last year we had \$101,000. This year we have gotten to date, from the Territory, \$83,500.52.

Mr. ANTHONY. Does that come from certain forms of taxation?

Maj. STEESE. That is appropriated directly by the territorial legislature.

Mr. ANTHONY. Well, I guess we would better pass on to the next paragraph.

Maj. STEESE. I have a copy of the amendments.

Mr. ANTHONY. Oh, yes; let us have the amendments.

Maj. STEESE. Memorandum for chairman of the Appropriations subcommittee, January 3, 1921, referring to second indorsement: War Department, Adjutant General's Office, December 7, 1920 (in miscellaneous division, C. H. A., A. M. T. 158). To the Chief of Engineers, and the letter of the Secretary of War dated December 1, 1920, to the Hon. Julius Kahn, House of Representatives.

Mr. ANTHONY. All right, put that in the record.

Maj. STEESE. This I have is the original. I will have to read it.

Mr. ANTHONY. Let us put that in the record.

Maj. STEESE. I was going to read it for the record, as I have just the original from the Secretary's office.

Mr. ANTHONY. Well, the argument is you can not expend all the money in the fiscal year properly, and it would lapse.

Maj. STEESE. The 1st of July catches us just as we have launched the work.

Mr. ANTHONY. Well, you may put that argument in connection with it in the record.

Maj. STEESE. Very well; I will insert that when I revise the record.

Mr. ANTHONY. Very well.

(The memorandum is as follows:)

JANUARY 3, 1921.

Memorandum for the chairman appropriations subcommittee:

1. Referring to the second indorsement, War Department, Adjutant General's Office, December 7, 1920, (110 (Misc. Div.) CHA/AMT/158), to the Chief of Engineers, and to letter of the Secretary of War, dated December 30, 1920, to Hon. Julius Kahn, House of Representatives, the following proposed change in the language of the appropriation for "Construction and maintenance of military and post roads, bridges, and trails, Alaska," is submitted with the recommendation that it be approved for inclusion in the Army appropriation bill for the fiscal year 1922, new language being indicated by underscoring.

Present language: For the construction, repair, and maintenance of military and post roads, bridges, and trails, Territory of Alaska, to be immediately available * * * \$955,000.

Proposed language: For the construction, repair, and maintenance of Military and post roads, bridges, and trails, Territory of Alaska, to be immediately available and remain available until expended * * * \$955,000.

Provided, That the Secretary of War is hereby authorized to receive from the Territory of Alaska, or other source, such funds as may be contributed by them to be expended in connection with funds appropriated by the United States for any authorized work of construction, repair, and maintenance of roads, bridges, ferries, trails, and related works in the Territory of Alaska, and to cause such funds to be deposited to the credit of the Treasurer of the United States, and to expend the same in accordance with the purpose for which they were contributed.

Provided further, That not to exceed ten thousand (\$10,000) dollars of the foregoing amount shall be expended for a preliminary investigation and report on the feasibility, desirability, and cost of the best and most practicable connection between the Nome-Shelton system of communications and the coal deposits of the Kugruk River, Chicago Creek, and the Keewalik mining district, whether by wagon road, sled road, tramway, trail, or other means.

2. The reasons for the change above proposed are fully set forth in the two documents above referred to.

Maj. STEESE. The second one is, we have already been getting money from the Territory for two years, and depositing it with the Treasurer. The Secretary of the Treasury thinks that is not quite regular and prefers to have it made regular.

Mr. ANTHONY. All right; you may put that in the record, too. Just save us time, put that in the record, and we will consider it when we get to the legislation.

Maj. STEESE. All right.

(The statement is as follows:)

[Extract from A. G. O., Dec. 7, 1920.]

On account of climatic conditions existing in Alaska the working season is necessarily limited, it being possible to carry on work only during the summer season and during a few weeks immediately preceding and following the same. With the fiscal year coming to an end, as it does, shortly after the beginning of the new working

season, and the resulting lapse of fiscal year funds, it is obvious that the carrying on of the work is considerably handicapped. The great area over which the operations of the road commissioners are carried out and the slow and uncertain means of transportation further handicap the work.

This recommendation that the language of this appropriation be modified so as to provide that funds thereunder will remain available until expended is concurred in and urged by the governor of the Territory, the commanding general, Ninth Corps Area, and the Board of Road Commissioners for Alaska.

The proviso quoted above authorizing expenditure of cooperative funds is essential in order that cooperation may be effected with the Territorial government or other Government department, in connection with the expenditure of funds for the construction and maintenance of roads. The Board of Road Commissioners for Alaska, under which the construction of roads, etc., in the Territory of Alaska has been carried on for approximately 15 years, having during that period acquired a wide experience in connection with that work, together with the necessary working forces and plant for its accomplishment, is better equipped for carrying on the construction and maintenance of roads in Alaska than any other agency in the Territory. In recognition of this fact, the Legislature of the Territory of Alaska, in 1919, passed a measure appropriating funds to be expended in connection with the construction of certain roads in Alaska, such funds to be expended under the supervision of the Board of Road Commissioners for Alaska. Expenditures have been made by the board under this authorization, but it is the view of the Treasury Department that such expenditures can not be properly made by the board without specific authority of Congress. It is for the purpose of securing this authority that the above proviso is submitted.

[Extract from letter of Secretary of War, Dec. 30, 1920.]

Since the estimates were submitted last summer for continuation of road and trail work in Alaska, additional information has come to hand which indicates the possibility of special treatment for the system of communications in the Seward Peninsula, Alaska. The proposed provision does not increase the total appropriation for road work in Alaska, nor the total allotment for work on the Seward Peninsula, nor does it require additional construction. It directs that not to exceed \$10,000 of the foregoing amount shall be expended upon a thorough-going investigation and report upon the best solution of the situation.

The Board of Road Commissioners for Alaska has recently had under consideration the entire situation on the Seward Peninsula and reports that additional investigation is necessary and desirable. This report has been concurred in by the War Department.

I therefore recommend that the proposed provision be inserted in the military appropriation bill for the fiscal year 1922.

Maj. STEESE. That is all I have, sir.

Mr. ANTHONY. Much obliged for your information, Major.

ENGINEER DEPOTS—INCIDENTAL EXPENSES, ETC.

Mr. ANTHONY. Major, will you give your name and official status to the reporter.

Maj. EDGERTON. Maj. G. E. Edgerton, Corps of Engineers, chief of supply section, office of the Chief of Engineers.

Mr. ANTHONY. Take up the division headed "Engineer depots for incidental expenses for the depots, etc."

You are asking for the next fiscal year, \$22,000. You were appropriated \$21,500 during this fiscal year. Did you spend all of that money during the current year?

Maj. EDGERTON. We have not spent it yet. We have spent a little less than half up to the 30th of November, which is the latest statement I have; that covers depots in outlying possessions only.

Mr. ANTHONY. Will all of it be absorbed?

Maj. EDGERTON. Yes, sir; all of it will be absorbed. We have a great difficulty in operating the depot at Corozal, Panama, with the funds available this year.

Mr. ANTHONY. Now, this item covers a multitude of the small expenses connected with the care and operation of these engineer depots?

Maj. EDGERTON. It covers that in phraseology. As a matter of fact though, Mr. Chairman, it covers all of the ordinary expense in the operation of an engineer depot at Corozal, in the Department of Panama, and one out at Honolulu, in the Department of Hawaii, and one in the Philippine Islands at Manila. The Corps of Engineers had no storage depots in this country prior to December 16.

Mr. ANTHONY. They were all consolidated?

Maj. EDGERTON. They were all consolidated.

Mr. ANTHONY. Now, you would like to take those back?

Maj. EDGERTON. Yes, sir; and we will have to use estimated amounts in the continental limits of the United States, under this appropriation, totaling \$290,000. We had anticipated until very recently asking your committee to consider increasing this appropriation to a total of \$212,000, but we found that the estimates for the activities were carried in the estimates for the Quartermaster Corps, and presumably they will be cared for by adjustments of other appropriations.

Mr. ANTHONY. So this all goes to Panama?

Maj. EDGERTON. To Panama and Hawaii and the Philippine Islands.

Mr. SLEMP. Is that the same kind of an appropriation you had in 1912 for \$30,000?

Maj. EDGERTON. Yes, sir; except that in 1912 we also operated a depot here in the City of Washington as well.

Mr. ANTHONY. Are there any exceptional expenses taken care of in this paragraph?

Maj. EDGERTON. No, sir; the items covered by these amounts are \$15,000 for the Corozal depot, and \$3,500 for the Honolulu depot, and \$3,500 for the Manila depot.

I might say those amounts are very close figures; we know exactly what amounts are going to be required, and while the committee cut them for last year \$500—

Mr. ANTHONY. All right.

ENGINEER SCHOOL, CAMP HUMPHREYS, VA.

Mr. ANTHONY. The Engineer School; this is at Camp Humphreys, Va.?

Maj. EDGERTON. Yes, sir. You do not care to go into the question of changed phraseology in that last item?

Mr. ANTHONY. No.

You are asking for \$47,300 for the Engineer School for the next fiscal year. You were given \$40,000 for the current year?

Maj. EDGERTON. Yes, sir.

Mr. ANTHONY. Did you spend all of that \$40,000?

Maj. EDGERTON. No, sir; we spent about one-third of it.

Mr. ANTHONY. Will you spend it?

Maj. EDGERTON. Yes, sir; we have not spent it quite as rapidly as in times past, because a large part of it will be used up in tuition of students who are attending civilian schools, and much of it was not used until September.

Mr. ANTHONY. How much are you going to use this year?

Maj. EDGERTON. About \$18,000.

Mr. ANTHONY. For educating engineering students?

Maj. EDGERTON. Yes, sir.

Mr. ANTHONY. What is the necessity for spending that much?

Maj. EDGERTON. The Engineer school is operated on a different plan than before the war. Before the war we gave our instructions to student officers at the Engineer school, which was at that time located at Washington Barracks; we maintained a considerable plant there for that purpose; we had a plant, buildings, mechanical equipment, and all of that sort of thing. Our young officers who had graduated from West Point were sent to the school for a period of 12 to 18 months. We gave them their military instruction, and instructed them in all their duties as officers, including such technical duties as mechanical and engineering subjects. They did not complete their engineering education at West Point.

Mr. ANTHONY. You have not the facilities now at the Camp Humphreys School for doing that work?

Maj. EDGERTON. We have not the facilities there, and instead of asking for money to build up a great engineering university, we have made suitable arrangements with several civilian institutions.

Mr. ANTHONY. Now, this expense of \$18,000 per annum for instruction of engineering officers is made necessary by reason of the fact that somebody in the War Department destroyed a very well-equipped engineering school at the Washington Barracks.

Maj. EDGERTON. That is essentially correct, Mr. Chairman, though this is a more economical proposition than educating these men at a school which we maintain ourselves, because they are few in number, and we can not go ahead and construct a university that would afford the instruction these men must have, like the Massachusetts Institute of Technology can give them, because we find the cost running up to \$1,200 or \$1,300 per student; whereas, at the Massachusetts Institute of Technology we are paying \$430 per student.

Mr. ANTHONY. How many engineering students do you propose to put in the civilian institutions next year?

Maj. EDGERTON. Forty next year.

Mr. ANTHONY. At an average cost of how much?

Maj. EDGERTON. \$450. Our present cost is \$430, but that is because we lost \$8,000 in this appropriation last year from our estimates, and it was necessary to require the students to pay their own laboratory fees, because we could not pay them.

Mr. ANTHONY. Then, what instructions do you carry on at Camp Humphreys?

Maj. EDGERTON. At Camp Humphreys we carry on military instruction. The course is subdivided into two parts, one of which is subdivided into two other parts. The first course is the basic course. It is strictly a military course, which we give to those officers who come in as lieutenants, or who come in from civil life without any military education.

The other is divided into two parts, one is for prospective field officers, a higher course in military subjects, and the other is a technical course which gives them special mechanical and electrical and civil engineering knowledge, which we believe officers have to have to carry on their work as officers. The last course is particularly

important now, because we have taken in a considerable number of officers—about 90—who are in nonuniform stages of education.

Mr. ANTHONY. Those that were emergency officers during the war?

Maj. EDGERTON. Yes, sir.

STRENGTH OF ENGINEER CORPS.

Mr. ANTHONY. What is the authorized strength for the Engineer Corps?

Maj. EDGERTON. Five hundred and twenty.

Mr. ANTHONY. How many have you in the corps now?

Maj. EDGERTON. Six hundred and two authorized I mean, plus details on the detached office list. We have about 520.

Mr. ANTHONY. You have 520?

Maj. EDGERTON. Yes, sir.

Mr. ANTHONY. What is the enlisted strength?

Maj. EDGERTON. Twelve thousand.

Mr. ANTHONY. How many have you?

Maj. EDGERTON. I should say we have about 5,000 or 6,000.

Maj. MARKS. As I remember the last statistical report it was about 5,000 or 6,000.

NEW EQUIPMENT.

Mr. ANTHONY. Out of this appropriation for Engineer School, do you intend to buy any new equipment?

Maj. EDGERTON. Yes, sir.

Mr. ANTHONY. How extensive?

Maj. EDGERTON. We expected to buy \$5,000 worth of new equipment; class room and laboratory, \$2,000; cameras and photographic, special, \$500; one Evinrude motor, for hydrographic surveys, \$450; drafting room, \$150; addressograph, \$250; blue printing and photostat equipment, \$350; supplies, printing paper, class room supplies, etc., \$1,300.

Mr. ANTHONY. There is no new construction contemplated?

Maj. EDGERTON. No, no new construction.

I might say this school also instructs at Camp Humphreys about 75 enlisted men of the class who would become noncommissioned officers of high grades.

NUMBER OF STUDENTS.

Mr. ANTHONY. Have you stated the number of students in the school at Camp Humphreys.

Maj. EDGERTON. We have in the school this year—by the way, I have a large memorandum here.

Mr. ANTHONY. I do not want to put the memorandum in the record, but if you have any figures showing the number of students, instructors, etc.

Maj. EDGERTON. During the fiscal year 1921 there will be in attendance at the Engineer School not less than 90 officers and 160 enlisted men.

In addition there are 41 officers receiving the advanced course of instruction, 39 of whom are at the Massachusetts Institute of Technology.

Mr. Sisson. Of what rank?

Maj. EDGERTON. As a rule, they are captains and majors. Some of them are captains, taking their technical course, and lieutenants who are taking the basic course. They should all be second lieutenants taking the basic course, but some of our officers of short service are of higher grade. Some of our second lieutenants who came in during the war were promoted immediately to first lieutenants.

Mr. Sisson. In other words, when they get through this primary school at West Point, you send them to a real school?

Maj. EDGERTON. Well, we send them for advanced instruction. West Point has never been an engineering school. It only gives a basic engineering course.

Mr. Sisson. I say, when they get through the primary school, you send them to the university.

Mr. ANTHONY. Now, in the language of the bill, you have put in the words "including construction." What is the necessity for that?

Maj. EDGERTON. That really enumerates the duties which the educational facilities are to prepare the officers for.

Mr. ANTHONY. That is, that you will instruct them in construction?

Maj. EDGERTON. Yes, sir. I might say that these changes that we are asking are not of such moment that we would be seriously handicapped if they are not made. They do not change anything essential that is done there; they merely change the phraseology to meet modern conditions.

Mr. ANTHONY. Then the language for the "purchase of books, textbooks, and books of reference for use of the school and use of temporary officers engaged on duties away from the engineering school" covers books for these officers in civilian schools?

Maj. EDGERTON. Yes, sir; and also the needs of the school are somewhat diverse, too, for that kind of library books.

Mr. ANTHONY. You ask, in the language of the bill, for compensation for temporary technical or special services of civilian instructors. Are you going to engage civilians?

Maj. EDGERTON. We have some civilian instructors who are engaged for enlisted men only.

Mr. ANTHONY. What are they?

Maj. EDGERTON. They are electrical experts, printers, and so on, that instruct these men in printing.

Mr. ANTHONY. And also doing some of the work?

Maj. EDGERTON. I do not think they do very much of the work down there; no, sir. They are busy all the time in instruction work.

Mr. Sisson. Major, how do you select the men who attend these schools?

Maj. EDGERTON. All of the officers have to go through this course and the enlisted men are selected by their commanding officers as sent to complete the course.

Mr. Sisson. How long does it take to complete the course?

Maj. EDGERTON. The basic course for the officers is now about a year.

Mr. Sisson. Now, is every officer, when he reaches a certain grade or a certain position, compelled to go to the institution?

Maj. EDGERTON. That is the plan. The plan is, Mr. Sisson, that every officer who is a year in the military service shall take this basic course. That is the first thing he does.

Mr. Sisson. That is, in this department?

Maj. EDGERTON. Yes, sir; that is the basic course. Then he goes to other duty, duty with the Engineer troops, and he serves with the troops, so he sees the practical application of the work he was doing during the first year. After he has served not less than two years with the Engineer troops, he then becomes available to take the advanced course, including the instruction at the civilian institutions.

Mr. Sisson. To a higher course?

Maj. EDGERTON. Yes, sir.

Mr. Sisson. Now, will all the men who have enlisted in the service and remain at least two years then have to go to the higher institution?

Maj. EDGERTON. Not enlisted men, but all officers excepting those who have had educational advantages that make it unnecessary. Some of our officers who came in from civil life during the war were highly educated, thus making it unnecessary for them to go to technical schools. We have three or four men who have gone through splendid colleges, and exemptions are made in those cases.

ENGINEER EQUIPMENT OF TROOPS.

Mr. ANTHONY. Now, the next is engineer equipment of troops. You are asking for \$374,000 for the next fiscal year. There was appropriated \$200,000 for the present year.

Maj. EDGERTON. Here is a splendid memorandum about the Engineer School, which I would like to put in the record.

Mr. ANTHONY. How much?

Maj. EDGERTON. About 11 pages.

Mr. ANTHONY. I do not think we had better put that in.

Maj. EDGERTON. It covers the whole subject.

Mr. ANTHONY. If you want to put in a few excerpts, all right; but we are making every effort to hold down the volume of our record.

Maj. EDGERTON. It has a great deal of history in it which is not of immediate importance to the committee, but I would like to have it put in print if I may. It has never been printed.

Mr. ANTHONY. I would rather not put it all in. Did you spend all of the \$200,000 appropriated for the current year?

Maj. EDGERTON. No, sir; we have spent only about 30 per cent of that appropriation. That appropriation was intended to purchase supplies for the last half of this year. We knew that the equipment itself was largely on hand, and the money asked for was intended for the purchase of the supplies used by troops in the second six months of the year.

Mr. ANTHONY. Are you going to spend it all?

Maj. EDGERTON. Yes, sir.

Mr. ANTHONY. Have you any itemized statement there showing the major items in that expenditure?

Maj. EDGERTON. Not that we have made so far.

Mr. ANTHONY. Any that you are going to make?

Maj. EDGERTON. Yes, sir.

Mr. ANTHONY. Will you put that in the record—how long is it?

Maj. EDGERTON. Well, I could read you off the main items from (a) to (f).

Mr. ANTHONY. Have you the principal items?

Maj. EDGERTON. Yes, sir.

Mr. ANTHONY. I would like to have them put in the record.

Maj. EDGERTON. Yes, sir.

Mr. ANTHONY. Read that off to us.

Maj. EDGERTON (reading statement, down to and including "nine Infantry divisions and one Cavalry division"):

Estimate submitted..... \$374,000

Basis of estimate:

- | | |
|---|---------|
| (a) Maintenance and replacement of Engineer equipment and supplies for nine Infantry divisions and one Cavalry division (based on maintenance and replacement percentages of 12 per cent for equipment and 100 per cent for supplies)..... | 210,000 |
| (b) Maintenance and replacement of Engineer equipment and supplies for existing organizations (July 1, 1920) in excess of those required to make up (a) (based on maintenance and replacement percentages of 12 per cent for equipment and 100 per cent for supplies).... | 83,500 |
| (c) Maintenance of mobile army searchlights..... | 6,200 |
| (d) Design and development of Engineer equipment..... | 39,000 |
| (e) Maintenance and repair of Engineer equipment at headquarters of Army corps areas and departments..... | 13,200 |
| (f) Miscellaneous and unforeseeable contingencies..... | 22,900 |

Total..... 374,000

This estimate is based on the replacements necessary in the material issued to the troops as engineering equipment, that which we call equipment, meaning the fixed part—the part that does not wear out—and engineering supplies, which are consumed in service.

Mr. ANTHONY. Now, that is on the theory they are going to maintain 10 divisions?

Maj. EDGERTON. Yes, sir.

Mr. ANTHONY. If they do not maintain 10 divisions, we do not need all of the equipment.

Maj. EDGERTON. If we do not maintain 10 divisions, we will not need quite all of that. I was going to say that in estimating permanent equipment we have estimated replacements only at the rate of 12 per cent, because we have information from the Quartermaster General, who stores this material, that he has on hand, and will have at the end of this year, the necessary equipment left from the war or purchased since, and also one set of supplies for us. We will have to take care of only that which they will wear out in a year, which we estimate at 12 per cent, and the supplies they use up, estimated at 100 per cent.

Mr. ANTHONY. You say you have only surplus left from the war to supply these 10 divisions for one year?

Maj. EDGERTON. That is all the troop equipment we have available.

Mr. Sisson. This does not simply represent 12 per cent, does it?

Maj. EDGERTON. No; it represents 12 per cent of the permanent equipment and 100 per cent of the supplies.

Mr. Sisson. How much of this \$374,000 will be for equipment?

Maj. EDGERTON. Well, that item I just read, sir, was \$210,000 of which \$77,484.23 is 12 per cent of the value of the initial equipment of 9 Infantry divisions.

Mr. Sisson. What is that stuff valued at as a total?

Mr. ANTHONY. He is going to tell us the cost of the equipment of one division now.

Mr. Sisson. Perhaps you may give me the information I want by giving the list you started to give the chairman.

Maj. EDGERTON. Perhaps I am a little confused as to your question. It is very clear to me, but perhaps I am not making myself clear to you.

Mr. ANTHONY. Maybe we are leading you too fast.

Maj. EDGERTON. Well, I thought I was making it very clear.

Mr. ANTHONY. You are making it very clear; you know your lesson very well.

Maj. EDGERTON. This \$77,484.23 is 12 per cent of the total cost of the fixed equipment, the property that does not wear out, except by accident or in the long run by wear and tear, of 9 divisions of Infantry.

Mr. Sisson. So, multiplying the \$77,000 and something by 8, would give you approximately the total value of the stuff.

Maj. EDGERTON. That is right.

Mr. Sisson. That is what I am trying to arrive at.

Maj. EDGERTON. That is right.

Mr. Sisson. Instead of \$374,000?

Maj. EDGERTON. Yes, sir; dividing \$77,484.23 by twelve one-hundredths will give it accurately.

Mr. Sisson. Yes.

Maj. EDGERTON. Then to get this \$210,000, I take 100 per cent of the supplies. In the supplies are all of those things that wear out, like paper and tracing cloth and explosives, that you blow up, and rope, which is worn out—all of those things that are worn out in the process of use, and the value of that for these units is \$92,369.70.

Mr. ANTHONY. Let me ask you a question right there. In providing for the purchase of explosives, with 250,000,000 pounds of explosives on hand, does the Engineer Corps buy new explosives for its use, or does it requisition that?

Maj. EDGERTON. We requisition that from the Ordnance Department, but we are required to pay the Ordnance Department for them. It goes back into the Treasury, I believe.

Mr. ANTHONY. It goes back into the miscellaneous receipts of the Treasury.

Maj. EDGERTON. Yes, sir; I think that is correct. At any rate, we are required to pay for it the same as if we bought it from somebody else.

SALE OF SURPLUS STORES.

Mr. ANTHONY. I thought there was authority to transfer surplus stores from one department to the other.

Maj. EDGERTON. Surplus stores, that is true; stores that are not required.

Mr. CRAMTON. Not required for the purpose for which they were issued. My idea is these departments will not declare anything surplus if they can see at any time in the far distant future they will have use for it. The question of the best financial interests of the Government makes no difference.

Maj. EDGERTON. Well, I daresay there is a good deal of caution among the various departments in that particular.

Mr. CRAMTON. You might call it conservatism and not overstate it.

Maj. EDGERTON. Perhaps it is, but I do not think the Engineer Department is subject to that criticism. We have sold all our stuff

very cleanly indeed, and I think at very good advantage to the Government. We had some difficulty in getting our surplus passed as quickly as we would have liked, but we sold a great deal of it last fall.

Mr. Sisson. You acted very wisely in doing so.

Mr. ANTHONY. You say the Engineer Department is cleaned up on everything practically?

Maj. EDGERTON. We have cleaned up almost all of our items. We are now selling a lot of 96 locomotives.

Mr. ANTHONY. Those are the locomotives you are now advertising for sale in the newspapers?

Maj. EDGERTON. Yes, sir.

Mr. ANTHONY. They are of a type that is not exactly adapted for use in this country?

Maj. EDGERTON. They are very good locomotives for use in this country, sir; but they were not built for this particular purpose; they were built for the old Imperial Russian Government and intended for a 5-foot gauge track.

Mr. ANTHONY. You have offered them for sale without altering the gauge?

Maj. EDGERTON. No, sir; we altered the gauge a long while ago and put them in service under the Railroad Administration, and when it went out of business the locomotives came back on our hands.

Mr. ANTHONY. Have you been getting any requests for them?

Maj. EDGERTON. We have sold 17 in about two months.

Mr. ANTHONY. Do you think you will get rid of them?

Maj. EDGERTON. We will sell them all right, sir; I do not know that we will sell all of them to the American railroads. There is considerable demand for those locomotives for export, but under the law we can not sell anything for export that is required for the domestic market.

Mr. Sisson. What do you get for these locomotives?

Maj. EDGERTON. We are asking \$25,000 apiece.

Mr. Sisson. Have you been getting \$25,000?

Maj. EDGERTON. Yes, sir; we sell them under very favorable terms to the railroads. We sell them for 10 per cent cash and the balance in nine equal yearly installments, the balance bearing 6 per cent interest.

Mr. Sisson. Do you get anything like the cost of the locomotives?

Maj. EDGERTON. No, sir; not in their sale price. Those locomotives cost us \$55,000 apiece.

Mr. Sisson. You are getting, then, a little less than 50 per cent

Maj. EDGERTON. We collected \$2,585,475 in rentals from various railroads. We rented them for nearly a year at \$45 a day each.

Mr. ANTHONY. Major, this estimate of \$374,000 was based upon equipping nine Infantry and one Cavalry divisions?

Maj. EDGERTON. Yes, sir; as well as the additional organization actually in existence.

Mr. ANTHONY. If the Army is reduced to 150,000, it is obvious you can not maintain that many divisions. How much would you be able to reduce this estimate?

Maj. EDGERTON. It is very difficult for me to answer that, because it depends upon what organizations are authorized. The Engineer equipment is not the equipment of the individual soldier; it is the equipment of the organization, so if you maintain so many Infantry regiments and so many Engineers—the Engineers are by far the largest special organization in the service—you require the full equipment, though the organizations may be at less than full strength.

Mr. ANTHONY. Yes, the Engineers have to carry along so many spades and so many trench tools, etc.

Maj. EDGERTON. Yes; they carry all that. That is in the basis of that entire \$374,000. We made that item \$210,000, which is——

Mr. ANTHONY. That would be materially reduced if the Army is reduced?

Maj. EDGERTON. Well, the maximum strength for which we have provided in this entire item is 192,077 men,

Mr. ANTHONY. That will be the maximum strength of the 11 divisions?

Maj. EDGERTON. No, sir; of all of the organizations that were in existence on July 1, 1920.

Mr. ANTHONY. I see; 195,000 men, according to our totals.

Maj. EDGERTON. Yes, sir. I took as this item nine Infantry divisions and one Cavalry division, and to that I added an item of \$85,300 for Engineer organizations then in existence, which would not go into those nine Infantry and one Cavalry divisions, and the estimates for these organizations are made up in that same way as those for the divisions.

Mr. ANTHONY. What is the next principal item?

Maj. EDGERTON. Those are the two large items. I have a small item for mobile Army searchlights, \$6,200. That is the third item. Did I make that clear?

Mr. ANTHONY. Yes, sir.

Maj. EDGERTON. There is one item for troops in the divisions, then \$85,500 for troops not in divisions, and next an item of \$6,200, which is a very small fund to provide for the upkeep of about 127 searchlight units, retained after the war as Army reserves. They have no great market value, except the chassis, proportionate to their military value. They are used for recruiting purposes, etc. If the inauguration had been held as contemplated, there would have been probably 20 of them down here. We use them only occasionally for miscellaneous purposes, and require a small fund for their upkeep.

SALARIES OF CIVILIAN ENGINEERS.

Mr. ANTHONY. Have you paid for the salaries of civilian engineers out of this appropriation?

Maj. EDGERTON. We paid part of the salaries of a physicist, a mechanical engineer, and mechanical inspectors, and a number of employees of lower grades.

Mr. ANTHONY. What are the salaries of those three engineers you speak of?

Maj. EDGERTON. The salary of the physicist is \$3,600. The mechanical engineer's salary is \$3,000, and the others range from about \$2,000 down.

DESIGNING AND DEVELOPING ENGINEER EQUIPMENT.

Maj. EDGERTON. I also have an item for designing and developing Engineer equipment, which is the fourth item, \$39,000.

I might say to the committee that this is the only item that partakes of the nature of new work. It is intended for the development of sapper, pontoon and bridge equipment, and it includes the purchase of improved transportation for one pontoon division for experimental purposes, \$15,000.

Now, we think that is very important. We are using the same pontoon equipment that was used during the Civil War, wooden boats and wooden chests and wooden barks, and carried on a wagon similar to an escort wagon. It is not capable of being towed around by trucks.

Mr. ANTHONY. Well, did you buy other pontoon equipment during the war?

Maj. EDGERTON. Not in any considerable quantity; no. We bought the same kind of pontoon equipment that was in use before the war. We bought during the last year, under this appropriation nine boats of special types for experimental purposes.

Mr. ANTHONY. Metal boats?

Maj. EDGERTON. No, sir; they are part metal and part wood and wood ply. We have difficulty in getting white pine to build boats.

Mr. ANTHONY. The reason you do not use metal boats is by reason of the weight in carrying them around?

Maj. EDGERTON. The weight in carrying them around, and they are easy to dent. A bullet hole or any little hole is pretty hard to patch, whereas on a wooden boat you can put a little plug in it and make a water-tight repair.

Mr. CRAMTON. What about this proviso? Do you propose to strike that out?

Mr. ANTHONY. They propose that that be stricken out.

Mr. CRAMTON. Well, does that want to be stricken out?

Maj. EDGERTON. Yes, sir; I might say that that was necessary in preceding years. Since the war, because all of the field activities of the Chief of Engineers under this appropriation were taken away from him with the consolidation of purchase and storage, it was necessary to provide for certain activities in the office of the Chief of Engineers, and after the legislative, executive, and judicial bill of that year had passed—I think it was in the year 1917—it was provided for in this way. Now, we have attempted to secure appropriate legislation to take care of this in the legislative, executive, and judicial appropriation bill.

Mr. ANTHONY. And it is taken care of by the legislative, executive, and judicial?

Maj. EDGERTON. I understand it is.

Mr. CRAMTON. I understand there was about \$150,000 involved in this?

Maj. EDGERTON. Yes, sir.

Mr. Sisson. That was just an appeal from the legislative, executive, and judicial to the Military Affairs Committee; that was just an appeal to a higher court.

Maj. EDGERTON. It was absolutely necessary for something to be done.

Mr. ANTHONY. I think we will go on the theory we have it——

Mr. CRAMTON. They subtract \$150,000 from \$200,000 and the answer is \$374,000; is that the idea?

Maj. EDGERTON. No, sir; it has nothing to do with the amount of the appropriation, except to authorize the necessary overhead in the District of Columbia. As a matter of fact, we intended to spend out of this appropriation a total of \$40,000 for the office of the Chief of Engineers.

Mr. ANTHONY. Then the civilian assistants to engineer officers. You are asking for \$60,000 for the next fiscal year.

Maj. EDGERTON. Maj. Marks is the man who handles that.

CIVILIAN ASSISTANTS TO ENGINEER OFFICERS.

(See p. 976.)

Mr. ANTHONY. There was appropriated \$40,000 for the current year?

Maj. MARKS. Yes, sir.

Mr. ANTHONY. Are you going to spend all of that \$40,000, Major?

Maj. MARKS. We will have to spend that \$40,000 within a month or so.

Mr. ANTHONY. Why do you need \$20,000 more for the next year?

Maj. MARKS. On account of the greater number of offices which we have established than existed at the time the appropriation was made last year.

Mr. ANTHONY. Could you not cut that increased number of offices and save a little money?

Maj. MARKS. That is a factor beyond our control, caused by the division of the United States into a certain number of corps areas, and in outlying departments, and it is not within our control to eliminate engineer staff officers from the local commanders' staff.

Mr. Sisson. What does your pay roll call for in those stations?

Maj. MARKS. At the present time we have 23 persons employed. The average salary is about \$1,400 per year.

Mr. Sisson. What is your highest salary?

Maj. MARKS. The highest salary is \$1,800 a year.

Mr. Sisson. In other words, these are nothing but clerks, then?

Maj. MARKS. Clerks and draftsmen. We have a few messengers on the rolls.

Mr. Sisson. Will you itemize for the record how you propose to spend that money?

Maj. MARKS. Our estimate is made up as follows: Nine corps area engineers, \$4,600; total, \$41,400; Panama Canal Department, \$7,600; Hawaiian Department, \$6,000; Philippine Department, \$5,000.

ENGINEER OPERATIONS IN THE FIELD.

Mr. ANTHONY. I guess that is all on that, is it not?

What is the next one? Engineer operations in the field, page 95.

You are asking for \$676,864 for this purpose in the next fiscal year. In 1921 you were allowed \$500,000. How much of that has been expended or will be expended?

Maj. EDGERTON. About 33½ per cent had been expended on November 30. We can not give you a full statement later than that,

because a large part of the operations are in Germany, and our reports have not come in.

Mr. ANTHONY. Is it certain you are going to expend all of the appropriation?

Maj. EDGERTON. All except possibly some small quantity we will have to maintain as emergency funds until too late to spend it. There may be \$2,000 retained in that way, but there is work for that entire appropriation and considerably more.

Mr. ANTHONY. And is this itemized? And, by the way, about the general items, just like I asked you to do in the preceding paragraph, will you put that in the record?

Maj. EDGERTON. When I revise the record?

Mr. ANTHONY. Have you the slips, so you can give it to the reporter?

Maj. EDGERTON. I am sorry to say this is the only copy?

Mr. ANTHONY. Well, read the principal items.

Maj. EDGERTON. The first item is Engineer training, nine Infantry divisions and one Cavalry division, \$73,000.

The second item is engineer training of existing organizations, as of July 1, 1920, in excess of nine Infantry and one Cavalry division, \$23,000.

Engineer training at the Infantry School, Camp Benning, \$37,000.

Engineer training at the Field Artillery School and firing center, \$17,000.

Engineer Trade School, Camp Humphreys, \$18,600.

Mr. ANTHONY. Is that for the education of the Engineer troops?

Maj. EDGERTON. Engineer soldiers; yes, sir; in their mechanical trades. The distinction, I guess, is clear to the committee, between that and the Engineer School proper.

Mr. ANTHONY. Why are not those expenses taken care of under the head of vocational training?

Maj. EDGERTON. Because we give our men a particular and specialized training, not with a view of what they are going to do in civil life but with regard to what we are going to use them for.

Mr. ANTHONY. Is any of this item used for the pay of civilian instructors?

Maj. EDGERTON. Yes, sir.

Mr. ANTHONY. How much of it?

Maj. EDGERTON. \$12,000.

Mr. ANTHONY. How do you class them, and what are they?

Maj. EDGERTON. There are five instructors at \$2,400 each, \$24,000 a month.

Mr. ANTHONY. All right. Go on with the other items.

Maj. EDGERTON. The proportionate part of the operation of Engineer reproduction plant at Washington Barracks, proportionate to this appropriation, \$82,760.

Mr. ANTHONY. What is Engineer reproduction plant?

Maj. EDGERTON. It is a mapping plant, which reproduces all sorts of maps.

Mr. ANTHONY. For the use of the Army?

Maj. EDGERTON. For the use of the Army; yes, sir.

Mr. ANTHONY. Do you get a share of the appropriations from other bills to carry on this reproduction work?

Maj. EDGERTON. Yes, sir; this is supported by a number of appropriations, including——

Mr. ANTHONY. Rivers and harbors?

Maj. EDGERTON. No, sir; not rivers and harbors: including surveys and maps, which you are going to take up in a short time.

Mr. ANTHONY. All right.

Maj. EDGERTON. Operation of the Engineer museum, which is a small museum at Camp Humphreys, \$5,000.00.

Expenses of corps engineers and department engineers in connection with the Engineer operations in the field, \$59,500.

Maintenance and repair of equipment, plant and machinery used under this appropriation and owned by it, \$52,000.

ENGINEER EXPENSES FOR OPERATIONS IN GERMANY.

The largest item of all is next, Engineer expenses for operations in Germany, \$243,000.

Item for unforeseeable contingencies, \$66,400.

Mr. ANTHONY. What engineering operations for the forces in Germany are necessary?

Maj. EDGERTON. The scope of our operations in Germany is larger than it is here. They operate now under the plan that was used in France under the expeditionary forces. We do construction work of all kinds—roads, quarters for troops, operating municipal plants and supplying the troops with electric light and power, and water service, etc.

Mr. Sisson. Well, is that not reimbursable to the United States?

Maj. EDGERTON. It is subject to reimbursement; yes.

Mr. ANTHONY. Are your engineering expenses over there being reimbursed?

Maj. EDGERTON. They are not being reimbursed to us. It is an obligation against the German Government. I do not think Germany has ever paid any money to us. They have contributed directly, however, by paying for work of this nature.

Mr. Sisson. Can you tell us whether or not this engineering expenditure is reimbursed to the Treasury?

Maj. BROWN. It is included with all of our other funds that are being reimbursed by the German Government, but it is in the general funds.

Mr. ANTHONY. Gen. Lord agreed to furnish us a statement showing the amounts paid by Germany.

Mr. Sisson. Yes; but I wanted this to appear in the hearing and want it called to the special attention of the committee.

Mr. ANTHONY. It will be in there.

Maj. BROWN. Yes; it will be in there.

Mr. ANTHONY. But you have no way of finding out whether the expenses of your engineering operations have been reimbursed?

Maj. EDGERTON. No, sir; except as general information; it would not come back to us.

Mr. ANTHONY. Will you make that inquiry and put it in the record?

Maj. EDGERTON. As to whether they have been?

Mr. ANTHONY. Yes.

Maj. EDGERTON. Very well.

Mr. Sisson. Not only whether they have been, but whether it is part of that expense that Germany is to reimburse.

Maj. EDGERTON. I know it is part of that expense that Germany is due to reimburse us for, and I am quite confident they have not reimbursed us for any of it yet.

Mr. CRAMTON. Well, is it not something that would go back into the Treasury and never come to this appropriation?

Maj. EDGERTON. Yes, sir.

Mr. ANTHONY. The statement has been made before this committee and before the committee last year that Germany was making her payments, but I have never seen any concrete statement showing the amount of money that has been paid in?

Maj. JACOBSON. It is in the record. Gen. Lord inserted it in his statements under "Pay of the Army."

Mr. ANTHONY. It has been collected?

Maj. JACOBSON. Yes, sir. It is calculated by Col. Hess on a per capita basis of the cost of maintaining the Army in Germany.

CONTINGENCIES, ENGINEER DEPARTMENT, PHILIPPINE ISLANDS.

Mr. ANTHONY. All right.

We have two more items, contingencies, Engineer Department Philippine Islands. You are asking for the same sum the next fiscal year that you had this fiscal year. Have you spent the \$2,500 each year there?

Maj. MARKS. It has been spent every year, practically all of it. They are so far away over there, and unknown things come up every once in a while that they can not anticipate the nature of, and this is just a little fund——

Mr. ANTHONY. Do you have any items showing what the expenditure is for?

Maj. MARKS. It is really for unusual expenses. One time they had a bad road washout, and they called on the Engineers to fix it, and we had to buy some material to repair the thing.

Mr. ANTHONY. It is used for emergency expenses?

Maj. MARKS. Emergency expenses.

MILITARY SURVEYS AND MAPS.

Mr. ANTHONY. All right. The next is military surveys and maps.

Maj. MARKS. I have that appropriation, sir.

This appropriation must be considered in connection with the whole mapping program of the United States. You gentlemen will appreciate that maps are one necessary thing that an Army must have, and we are putting this estimate in of \$212,000 as a fair estimate of what we think is required to carry on that work at reasonable speed.

Mr. ANTHONY. It is double the sum that was appropriated in 1921.

Maj. MARKS. Yes, sir; it is. It is practically the amount we asked you for last year.

Mr. ANTHONY. How could you get along with \$100,000 this year?

Maj. MARKS. Oh, we could get along. It is merely a program which has to be continued.

Mr. ANTHONY. How much of that work do you want to do?

Maj. MARKS. It is a program that —

Mr. CRAMTON. What does the program include?

Maj. MARKS. The program includes the mapping of the United States and its possessions.

Mr. ANTHONY. You started out several years ago. Did you make a complete survey of the coasts first?

Maj. MARKS. Coasts; yes, sir.

Mr. ANTHONY. And contiguous territory?

Maj. MARKS. Yes, sir.

Mr. ANTHONY. How far has that gone?

Maj. MARKS. The Atlantic coast, at the present time, except in the States of South Carolina and a portion of North Carolina, are quite well completed. On the Gulf coast there has been practically no work taken up by any of the governmental agencies, and it is not so important anyway as the Atlantic coast.

Mr. Sisson. And yet it is said by all military experts throughout the world that if there is a landing made in the United States, it is going to be by way of the Caribbean Sea, by gaining control, if possible, of the Panama Canal and the islands, and landing on the Gulf coast.

Maj. MARKS. I never heard that.

Mr. CRAMTON. What is the estimated cost of the total project? Have they attempted to estimate it yet?

Mr. ANTHONY. Yes. Has anything been accomplished so far?

Maj. MARKS. This work that has been accomplished so far has been entirely satisfactory. Not much is done by the Army in continental United States you understand; it is done by the Geological Survey and other governmental services. This area shown on the map is work under way; the blue areas are compiled maps from all available sources such as county road maps.

Mr. CRAMTON. Your expenditures in 1919 were outside of the United States, were they?

Maj. MARKS. Yes, sir; some. We have a great many projects under way—in the Island of Luzon in the Philippines, and we have had one under way in the Canal Zone.

Mr. ANTHONY. Paid out of this appropriation?

Maj. MARKS. Out of this appropriation.

Mr. CRAMTON. Your expenditure in 1919 was——

Maj. MARKS. That was largely on the Atlantic coast, work in Maine, and on the Pacific coast.

Mr. ANTHONY. That was considered to be a war necessity?

Maj. MARKS. That was considered to be a war necessity; yes, sir. From Norfolk down to Jacksonville there was not a topographic map in existence prior to the war.

Mr. ANTHONY. How did they operate during the Civil War without maps?

Maj. MARKS. Well, I have read many times that one reason Gen. McClellan's whole peninsular campaign failed was because he had a map of a river flowing one way when the river actually flowed in a direction perpendicular to it.

Mr. ANTHONY. Who was that?

Maj. MARKS. Gen. McClellan.

Mr. Sisson. I do not think it failed on that account.

Maj. MARKS. Well, it might have failed, anyway.

Mr. Sisson. He had Gen. Lee down there to look after.

Maj. MARKS. In the continental United States, with the exception of in vicinity of the Texas border, we have seldom done any work ourselves; it is a question of allotting funds to the Geological Survey to work in areas where the War Department desires work done.

Mr. CRAMTON. Well, was the idea of invasion of this country considered to be a serious enough proposition during the war, when we had such tremendous drains on us, that we spent \$1,000,000 for mapping our Atlantic coast?

Maj. MARKS. I could not say. I was in France and not in the United States.

Mr. CRAMTON. Well, I think the war was used as an excuse for a great many expenditures that have been desired for a long time.

Maj. EDGERTON. They put in the antiaircraft guns in Tampa and Jacksonville.

Mr. CRAMTON. That is a much different proposition.

Maj. EDGERTON. I think that was in connection with the same general project.

Mr. CRAMTON. They can get railroad maps without spending that much money.

Mr. ANTHONY. You want to make this appropriation available in—

Maj. MARKS. We want this to carry over, because when we start we have to plan to start work in the spring and work over until fall.

Mr. ANTHONY. You want it made available for the full calendar year; is that it?

Maj. MARKS. For the next calendar year.

Mr. ANTHONY. Next calendar year, yes; as we have done heretofore.

Maj. MARKS. Yes; that has always appeared in that item.

Mr. ANTHONY. All right.

Maj. MARKS. There is one thing I would like to call to the attention of the committee.

In a place like Panama, the Army must do all of its map work itself. We have no bureau, like the Coast Survey or the Geological Survey, or any other bureau, to look out for us. Now, down there, with the progress we have been able to make up to the present time, it will be a question of 50 years before we have a map of the Zone and the territory lying 50 miles on each side of the Zone, and we hope to put funds at the rate of \$20,000 a year into this project. Panama alone. Troops are used for the work, but we have to hire natives for cutting in the brush, and to help in the ditch digging which is necessary for sanitary arrangements in camps out in the tropical jungles.

Mr. ANTHONY. Does this cover all of the Engineer items?

Maj. MARKS. Yes, sir.

Mr. BROWN. Yes.

Mr. ANTHONY. Much obliged to you gentlemen.

THURSDAY, JANUARY 13, 1921.

ORDNANCE DEPARTMENT.

STATEMENTS OF BRIG. GEN. W. S. PEIRCE, ASSISTANT CHIEF OF ORDNANCE, MAJ. C. T. HARRIS, Jr., MAJ. A. J. STUART, MAJ. H. L. RICE, MAJ. G. F. JENKS, COL. C. L'H. RUGGLES, MAJ. J. H. BURNS, MAJ. S. H. MCGREGOR, CAPT. HERBERT O'LEARY, MAJ. W. A. BORDEN, AND MAJ. L. B. MOODY.

GENERAL STATEMENT.

Mr. ANTHONY. Gen. Peirce, you are representing the Ordnance branch at this hearing?

Gen. PEIRCE. Yes, sir; Gen. Williams is out of town and requested me to appear in his behalf before you.

Mr. ANTHONY. You are asking for \$5,582,000 in the estimate for the next fiscal year. There is appropriated in 1921 \$5,000,000 for the Ordnance. Will you tell us how much of this current year's appropriation has been allotted and how much has been expended thus far?

Gen. PEIRCE. Yes, sir; I will come to that in a moment. With your permission I would like to make a preliminary statement on this Ordnance service appropriation.

Mr. ANTHONY. All right; but I would really like to have those two figures if you could just give them to us now; then we will let you make your statement.

Gen. PEIRCE. The amount appropriated was \$5,000,000; the amount absolutely allotted is \$3,666,573.24; the balance reserved is \$1,028,712.56, leaving at the present time an unreserved, or free balance of \$254,714.20.

Mr. ANTHONY. Unreserved balance?

Gen. PEIRCE. Yes, sir; a free balance.

Mr. ANTHONY. That means there has been allotted of the \$5,000,000 all except \$254,714?

Gen. PEIRCE. Allotted or reserved.

Mr. ANTHONY. How long will the allotment carry you for the current year; will you be able to close up your current fiscal year within your appropriation?

Gen. PEIRCE. Yes, sir; we have got to.

Mr. ANTHONY. And will probably have a little left?

Gen. PEIRCE. I can not tell whether there will be any left; if there is it will be a very small amount; we do not intend to spend any more of it than we have to.

Mr. ANTHONY. Is your present estimate of \$5,582,000 based upon an army of 280,000 men?

Gen. PEIRCE. No, sir; it has very little, if any, connection with the size of the Army.

Mr. ANTHONY. So that in any reduction of the Army from the maximum authorized by the reorganization act your appropriations for ordnance would not be affected?

Gen. PEIRCE. No, sir.

Mr. ANTHONY. Now, general, I would like to have you go ahead with your general statement.

Gen. PEIRCE. The Ordnance Department operates under three classes of appropriations: Manufacturing appropriations, ordnance service, and repairs of arsenals. Of these, ordnance service and repairs of arsenals are among the most important because from them are defrayed the expenses at many ordnance establishments at which no manufacturing operations are conducted; and, therefore, the manufacturing appropriation would not be available.

Mr. ANTHONY. You got your manufacturing appropriation from the sundry civil bill?

Gen. PEIRCE. In this bill, sir, quite a number in this bill; there is really no manufacturing appropriation in the sundry civil bill. the manufacturing appropriations come in the Army bill and in the fortifications bill.

Mr. ANTHONY. Just what appropriations do you get under the sundry civil bill and fortifications bill, and what appropriations do you get under this bill?

Gen. PEIRCE. The appropriations in the sundry civil bill are repairs of arsenals, which is a general appropriation applicable to the repair of plant and buildings at arsenals, and some special items or special appropriations for arsenals that are specifically mentioned, which are generally in the way of major improvements that will not be carried under the regular appropriation for repairs of arsenals. In the fortifications bill are carried generally the appropriations for the use of Coast and Field Artillery, for the provision of armaments, the maintenance of armaments, and any alterations that are made. In the Army bill there is ordnance service, which is a general service appropriation. There are appropriations for ammunition stores and supplies and for the manufacturing of arms, and for automatic machine rifles and for tanks.

Mr. SLEMP. The ammunition would relate only to the ammunition peculiar to individuals?

Gen. PEIRCE. Small arms and machine guns, with a few exceptions. There is one item, ammunition for firing the morning and evening guns, which is cannon ammunition, of course, and is a small item.

Mr. ANTHONY. Before you start your statement, your three main arsenals are Rock Island, Ill., Springfield, Mass., and Watervliet?

Gen. PEIRCE. We have one at Watertown, Mass., which is one of our very large arsenals; and one at Frankford, Pa., which is also a very large arsenal. There is where all the small-arms ammunition is manufactured.

Mr. ANTHONY. Tell us what you are manufacturing at each arsenal beginning with Rock Island.

Gen. PEIRCE. At Rock Island they manufacture mobile-artillery gun carriages. We also have a plant there for the manufacture of Infantry rifles, and we have the machinery and the space for the plant for machine guns. We are also intending to concentrate there the manufacture of tanks and tractors.

Mr. ANTHONY. The only thing you are producing there now are carriages for mobile artillery?

Gen. PEIRCE. In an experimental and developmental way; there is no quantity production going on.

Mr. ANTHONY. What is the Rock Island Arsenal running on?

Gen. PEIRCE. It is running on developmental work and a certain amount of overhauling of stores that were returned from the war. Those are the principal items.

Mr. ANTHONY. It is running on a full force of men?

Gen. PEIRCE. Oh, no, sir; a very much reduced force. There are about 2,500 men there now.

Mr. ANTHONY. What percentage of the full force is that. How does that compare with the ordinary piece-time force prior to the war?

Gen. PEIRCE. It is a little larger than the peace-time force before the war.

Mr. ANTHONY. Twenty-five per cent of your war-time strength?

Gen. PEIRCE. Just about that.

Maj. JENKS. Ten per cent of the maximum.

Mr. SLEMP. General, just a moment there. I do not think that condition will begin to exist until the first of this coming July, will it?

Gen. PEIRCE. There will be a still further reduction by the 1st of July. Maj. Jenks, what do you expect it to be cut down to by the 1st of July?

Maj. JENKS. Around 2,300.

Gen. PEIRCE. It will be down to about 2,300, then.

Mr. ANTHONY. What do you do at Springfield, Mass.?

Gen. PEIRCE. That is a small-arms factory. The principal work there now has been the overhauling of the model 1917 rifle. And large numbers of them needed overhauling before they could be put in serviceable condition for storage. They are also manufacturing a small number of model 1903 in order to maintain a skeleton force.

Mr. ANTHONY. That is a small-arms plant entirely?

Gen. PEIRCE. That is a small-arms plant entirely.

Mr. ANTHONY. What do you manufacture at Watervliet?

Gen. PEIRCE. At Watervliet we manufacture guns, seacoast guns, and the mobile artillery guns.

Mr. ANTHONY. Your work there is practically confined to the manufacture of seacoast guns, is it not?

Gen. PEIRCE. I think they have still some of the heavier mobile guns that are being manufactured.

Maj. JENKS. Seacoast guns and development work.

Gen. PEIRCE. No 240-millimeter?

Maj. JENKS. No, sir.

Mr. ANTHONY. Have you not practically finished your construction program for ordnance for large guns that was adopted during the war?

Gen. PEIRCE. I think the program we are working on now is the program that was adopted before the war; it relates to coast fortifications.

Mr. ANTHONY. I refer to the contracts that were made for your guns for mobile artillery, caliber 75 and up.

Gen. PEIRCE. Oh, yes; there is no construction work on those now.

Mr. ANTHONY. Those contracts were let during the war and have been completed?

Gen. PEIRCE. Either completed or terminated.

Mr. ANTHONY. Terminated, and the completed guns all in storage?

Gen. PEIRCE. Yes.

Mr. ANTHONY. What do you manufacture at Watertown?

Gen. PEIRCE. Gun carriages, seacoast gun carriages, and seacoast projectiles, and some medium caliber projectiles.

Mr. ANTHONY. And at the Frankford Arsenal what do you manufacture?

Gen. PEIRCE. Mostly small-arms ammunition and various types of fire-control instruments.

Mr. ANTHONY. All right; we will be glad to have you continue with your statement.

Gen. PEIRCE. I wanted to say at the outset that appreciating the work before this committee and in the endeavor to render every assistance that we could we have been over the items of our estimate with the greatest care and classified them into three classes: Class A, that which we feel is absolutely necessary in view of conditions as they now exist; class B, those items which we believe to be necessary things which should be done and will have to be done eventually, but which could be postponed for a year, or two or three years; if in the judgment of the committee it is thought wise not to undertake them next year they do not have to be done next year: class C, those amounts which in the light of present information, not available when the estimates were originally prepared, we could not use the following year even if appropriated, and, therefore, are absolutely withdrawn.

Applying that classification to ordnance service, the first item

Mr. SLEMP. Pardon the interruption; would it not be better for you to put down the total of A, B, and C before you go on itemizing?

Gen. PEIRCE. I can do that, sir; in the total estimates as submitted—

Mr. ANTHONY. I wanted to suggest that after you put in the classifications asked for by Mr. Slemp, that you insert in the record an itemization of the estimates which you have made of the appropriation—I suppose you have it classified and itemized.

Gen. PEIRCE. Classified?

Mr. ANTHONY. Yes.

Gen. PEIRCE. I have it for every item right through.

Mr. ANTHONY. I do not want to go into all the details.

Gen. PEIRCE. I will give you the totals Mr. Slemp has just asked for.

Mr. ANTHONY. Yes, I want you to give that; and then in addition to that, the general itemization of the amount.

Gen. PEIRCE. The total estimates submitted are \$13,168,691. These have been classified as follows: A, \$8,542,418; B, \$2,981,000; C, \$1,645,181.

Mr. ANTHONY. How did you finally cut class A to \$5,000,000?

Gen. PEIRCE. We have not done that.

Mr. ANTHONY. You are not asking for it all in this bill?

Gen. PEIRCE. Yes, sir; it is all in there.

Mr. ANTHONY. Oh, yes; we are just speaking about the Ordnance service.

Gen. PEIRCE. Those are the figures I have given you, of which Ordnance service is only one item.

Mr. ANTHONY. How many items have you got in this bill?

Gen. PEIRCE. There are seven, sir.

Mr. ANTHONY. And they total \$8,000,000?

Gen. PEIRCE. \$8,542,418 as opposed to \$13,168,691 in the estimates.

Mr. ANTHONY. I see; I was referring to the item for Ordnance service when I first spoke.

Gen. PEIRCE. Now, I can, if you desire, at this point give you the classification of each one of the separate main items of the bill—that what you desire?

Mr. ANTHONY. Well, I want some intelligent statement in the record that will show how the appropriations which you asked for are going to be expended; under what heads, and the amounts that will be used for that purpose without going into too great detail.

Gen. PEIRCE. We have that, sir. I had proposed to take up that information under each one of the main items. That one you are looking at now pertains only to Ordnance service, the first item.

Mr. ANTHONY. Well, I would like to have inserted in the record the first two and a half pages of this statement.

Gen. PEIRCE. All right, sir; I will do that.

ARMY APPROPRIATION ACT, 1922.

Ordnance service:

For the current expenses of the Ordnance Department in connection with purchasing, receiving, storing, and issuing ordnance and ordnance stores, comprising police and office duties, rents, tolls, fuel, light, water, and advertising, stationery, typewriters, and adding machines, including their exchange, and office furniture, tools, and instruments of service; for incidental expenses of the ordnance service, and those attending practical trials and tests of ordnance, small arms, and other ordnance stores; for instruction purposes; for publications for libraries of the Ordnance Department, including the ordnance office; subscriptions to periodicals, which may be paid for in advance; and payment for mechanical labor in the office of the Chief of Ordnance; and for maintenance, repair, and operation of motor-propelled or horse-drawn passenger carrying vehicles.....		\$5, 582, 133
A.....	3, 692, 860	
B.....	597, 092	
C.....	1, 292, 187	

Provided, That all material purchased under the appropriations in this act for the Ordnance Department of the United States Army shall be of American manufacture, except in cases when, in the judgment of the Secretary of War, it is to the manifest interest of the United States to make purchases abroad, which material shall be admitted free of duty.

Divided as follows:

(1) Manufacturing arsenals and establishments.....	\$1, 099, 400
A.....	800, 000
C.....	299, 400
(2) Field-service establishments and activities.....	3, 888, 789
A.....	2, 348, 650
B.....	597, 092
C.....	943, 047
(3) Aberdeen Proving Ground.....	190, 000
A.....	156, 000
C.....	34, 000
(4) Nitrate establishments.....	263, 944
A.....	248, 210
C.....	15, 734
(5) Ordnance office.....	140, 000
A.....	140, 000
Total.....	5, 582, 133

The manufacturing establishments are as follows:

Name.	Acreage.	Number of build-ings.	Estimated value of plants, July 1, 1921.	Value of stores
Amatol Arsenal.....	6,000	162	83,000,000	852,880.29
Chicago storage depot.....	47	7	7,602,783	
Dayton Branch, Aircraft Armament Division.....				
Erie howitzer and Rochester gun plants.....	23	7	9,763,000	2,000.00
Frankford Arsenal.....	92	141	13,000,000	9,000.00
Picatinny Arsenal.....	1,616	341	8,965,166	20,000.00
Rock Island Arsenal.....	897	180	42,995,000	392,011.34
Springfield Armory.....	306	58	5,000,000	77,400.00
Tullytown Arsenal.....	1,230	125	2,000,000	16,536.06
Watertown Arsenal.....	87	58	20,122,640	5,000.00
Watervliet Arsenal.....	109	63	10,253,978	5,000.00
Total.....			122,702,468	579,836.59

The field service establishments and activities are as follows:

Name.	Acreage.	Number of build-ings.	Estimated value of plants, July 1, 1921.	Value of stores
Aberdeen storage area.....	20	12	373,476	76,790.00
Augusta Arsenal.....	100	81	1,055,743	31,660.00
Benicia Arsenal.....	339	72	1,028,600	16,111.00
Charleston general ordnance depot.....	840	177	4,625,000	74,677.46
Curtis Bay general ordnance depot.....	789	285	6,942,498	84,790.00
Delaware general ordnance depot.....	1,540	180	4,151,517	67,255.00
Erie Probing Ground.....	1,264	101	5,615,121	69,000.00
Hawaii storage depot.....	72	41	564,359	1,000.00
Manila storage depot.....	9	34	562,933	1,000.00
Middletown general ordnance depot.....	94	75	1,372,180	27,254.00
Morgan general ordnance depot.....	1,759	224	6,746,404	37,120.00
Ogden Arsenal.....	1,200	(1)	1,899,770	
Old Hickory Powder Plant.....	5,539	200	5,000,000	50,000.00
Panama storage depot.....	43	24	441,182	1,000.00
Pig Point general ordnance depot.....	508	220	3,699,643	72,100.00
Raritan Arsenal.....	2,132	653	13,179,000	214,264.00
San Antonio Arsenal.....	20	50	997,600	23,694.00
Savannah Proving Ground.....	13,000	167	5,165,920	150,000.00
Seven Pines general ordnance depot.....	1,800	372	4,530,000	54,000.00
Sparta general ordnance depot.....	14,111	268	1,149,000	15,700.00
Toledo storage depot.....	604	83	3,268,890	29,400.00
Wingate general ordnance depot.....	83,200	200	650,500	21,300.00
Penniman general ordnance depot.....	(3)	(3)	(3)	34,700.00
Woodbury general ordnance depot.....	(3)	(3)	(3)	22,400.00
Total.....			73,639,335	1,166,600.00

¹ Under construction.
² To be abandoned and stores reapportioned.

Activities are also maintained in 2 Army posts, 3 Army reserve depots, 2 Army supply bases, 9 area headquarters, and 8 Coast Artillery district headquarters.

The nitrate establishments are as follows:

Name.	Acreage.	Number of build-ings.	Estimated value of plants, July 1, 1921.
Nitrate plant No. 1.....	1,900	163	813,000.00
Nitrate plant No. 2.....	2,800	1,007	76,400.00
Warrior-Sheffield Transmission Line.....	58	24	1,000.00
Total.....			880,400.00

The ordnance office estimate is divided as follows:
Military training—(a) Incidental expenses at ordnance schools, \$38,400.00 (b) of officers taking advanced courses.

Mr. ANTHONY. Now, Gen. Peirce, continue your statement, if you will, please.

ORDNANCE SERVICE.

Gen. PEIRCE. In regard to the first item, that of ordnance service, as I have said, this is one of the most important appropriations for the Ordnance Department. We had, before the war, 14 ordnance stations of a total approximate land value of \$28,000,000, stores at such stations to the value of \$60,760,000; at the present time we have 37 establishments; cost value \$400,449,000, with stores to the value of \$1,726,448,000.

At practically all our establishments, except the manufacturing arsenals, the expenses are paid out of ordnance service; and with the exception of such minor repairs to buildings as is done that is the only appropriation under which they operate.

HANDLING, ETC., OF STORES.

At the close of the war we were left with tremendous quantities of stores at manufacturing plants at various storage points in this country and in France. One of the most pressing problems that we had at that time was collecting these stores, getting them out of privately owned storage into Government-owned storage, and as rapidly as possible, getting explosives and other dangerous stores away from populous points.

All this had to be done as rapidly as possible. While the transportation involved is paid out of the transportation of the Army, the handling of these stores at the points of issue and receipt is a charge against ordnance service.

There still remains to be done a very great deal of work in this connection. These stores were hastily put in their present storage, a large part of which consists of temporary buildings which were already badly in need of repair and which could not be repaired without very considerable expenditure. The stores also must be so arranged that they can be gotten at for purposes of maintenance. A great part of them will have to be rearranged from the hasty manner in which they were first put in.

Mr. SLEMP. General, did you not have last year an appropriation of some several million dollars?

Gen. PEIRCE. I am just coming to that, sir. In 1920, our ordnance service appropriation was \$7,000,000; the present year it is \$5,000,000; we are estimating under the A classification \$3,692,860.

Mr. SLEMP. What I meant, though, was that there was a special appropriation carried, I think, in one of the deficiency bills. I think perhaps it was \$8,000,000 was it not, for the storing of munitions and supplies and so forth independent of these bills?

Gen. PEIRCE. I do not want to convey the impression that ordnance service is available for the procurement of storage either for the construction or repair of buildings at all. It is the appropriation out of which we have to pay the men who handle the stores in the process of sending them from one place to another and of rearranging them wherever it is found to be necessary.

The manufacturing establishments are as follows:

Name.	Acreage.	Number of build-ings.	Estimated value of plants, July 1, 1921.	Value of stores
Amatol Arsenal.....	6,000	162	\$3,000,000	\$52,442.24
Chicago storage depot.....	47	7	7,602,783	.....
Dayton Branch, Aircraft Armament Division.....				
Erie howitzer and Rochester gun plants.....	23	7	9,763,000	2,000,000
Frankford Arsenal.....	92	141	13,000,000	9,000,000
Picatinny Arsenal.....	1,616	341	8,965,166	20,000,000
Rock Island Arsenal.....	897	180	42,995,000	302,011,774
Springfield Armory.....	306	58	5,000,000	77,400,000
Tullytown Arsenal.....	1,230	125	2,000,000	16,538,000
Watertown Arsenal.....	87	58	20,122,640	5,000,000
Watervliet Arsenal.....	109	63	10,253,978	5,000,000
Total.....			122,702,468	579,839,594

The field service establishments and activities are as follows:

Name.	Acreage.	Number of build-ings.	Estimated value of plants, July 1, 1921.	Value of stores
Aberdeen storage area.....	20	12	373,476	70,792.00
Augusta Arsenal.....	100	81	1,055,743	31,462.00
Benicia Arsenal.....	339	72	1,628,600	16,131.00
Charleston general ordnance depot.....	840	177	4,625,000	74,677.00
Curtis Bay general ordnance depot.....	789	285	6,942,498	84,784.00
Delaware general ordnance depot.....	1,540	180	4,151,517	47,235.00
Erie Probing Ground.....	1,264	101	5,615,121	49,020.00
Hawaii storage depot.....	72	41	564,359	1,070.00
Manila storage depot.....	9	34	592,933	1,737.00
Middletown general ordnance depot.....	94	75	1,372,180	27,561.00
Morgan general ordnance depot.....	1,759	224	6,746,404	37,111.00
Ogden Arsenal.....	1,200	(1)	1,889,770	.....
Old Hickory Powder Plant.....	5,539	200	5,000,000	30,000.00
Panama storage depot.....	43	24	441,182	1,720.00
Pig Point general ordnance depot.....	508	220	3,699,643	72,171.00
Raritan Arsenal.....	2,132	653	13,179,000	214,361.00
San Antonio Arsenal.....	20	50	997,600	33,494.00
Savannah Proving Ground.....	13,000	167	5,165,920	150,000.00
Seven Pines general ordnance depot.....	1,800	372	4,530,000	54,000.00
Sparta general ordnance depot.....	14,111	268	1,149,000	15,711.00
Toledo storage depot.....	604	83	3,268,899	28,445.00
Wingate general ordnance depot.....	83,200	200	650,500	21,771.00
Penniman general ordnance depot.....	(1)	(1)	(1)	34,771.00
Woodbury general ordnance depot.....	(1)	(1)	(1)	22,421.00
Total.....			73,639,335	1,146,879.00

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Total.....			89,000.00

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Mr. SLEMP. I did not want to interrupt the continuity of your story, but when you were speaking about the collection of material I thought it was provided for in a special appropriation.

Maj. STUART. That appropriation, Mr. Slemp, was simply to cover the construction of the new magazines in order to take care of the amounts we had on hand.

Mr. SLEMP. But not movable?

Maj. STUART. No; sir.

Gen. PEIRCE. From these general figures it will be seen that appropriations have been gradually decreasing; and a further decrease is anticipated within the next year or two until we can get down to our what are essentially peace conditions. But we have in this great accumulation of stores an asset in the way of preparedness that we never had before; and we certainly think that it is the wisest possible course to conserve that supply as long as it is in condition for use.

Mr. ANTHONY. So that of this total of \$5,582,000 for which you are asking under the head of ordnance service it is absolutely necessary that you have what you designate in class A three million and some thousand dollars.

Gen. PEIRCE. Yes, sir; in our judgment and after a most careful review of the conditions as they exist now and as far as they can be anticipated for the future.

Mr. SLEMP. How many civilian employees does that take care of, Gen. Peirce?

Gen. PEIRCE. Maj. Stuart, that comes more largely in the field service.

Maj. STUART. The item of \$3,692,000 provides for the storage and shipping operations at what we call our field service establishments which are primarily for the storage and maintenance of this material, although at the manufacturing arsenals there is also a large amount of the war-reserve material. This minimum amount will provide for approximately 1,300 employees at the field-service establishments; the number at the manufacturing arsenals would bring it up to somewhere around 1,850.

Gen. PEIRCE. It would be in the neighborhood of 1,800.

Mr. SLEMP. This committee last year, as I remember, refused to take jurisdiction of maintaining your ammunition supply but the matter goes to the Fortifications Committee.

Gen. PEIRCE. This is not maintenance.

Mr. SLEMP. It is not?

Gen. PEIRCE. No, sir; it is simply the handling of stores as they are rearranged in storage and issuing or receiving when they are transported.

Mr. ANTHONY. So this applies almost entirely to stores?

Gen. PEIRCE. Yes, sir.

Mr. SLEMP. Have you not got your supplies localized yet two years after the war?

Gen. PEIRCE. Not in the way that they should be; they were put into that storage which was the first at hand because of the necessity for putting them somewhere.

Mr. SLEMP. Still you have been working on it now two years.

Gen. PEIRCE. We had a tremendous amount of it.

Mr. SLEMP. And you still lack that much of getting out?

Gen. PEIRCE. Yes.

Mr. ANTHONY. Do you pay anything for labor at the different plants out of this appropriation—that is, for your mechanical labor and manufacturing labor?

Gen. PEIRCE. Not a cent, sir.

Mr. ANTHONY. It is all for civilian labor that is utilized in the care of the stores?

Gen. PEIRCE. In the care of the stores and the records.

CIVILIAN EMPLOYEES.

Mr. ANTHONY. Can you put in the record the number of civilian employees that are paid out of this appropriation, and classify them, not in infinite detail, but so many men of such a class at such an average salary, and so forth?

Gen. PEIRCE. Yes, sir.

Ordnance employees on ordnance service pay roll.

	Admin- istrative and clerical, average pay, \$1,500.	Mechan- ical and labor, average pay, \$1,350.	Guards and firemen, average pay, \$1,200.	Total.
Manufacturing service.....	61	158	145	364
Technical staff.....	26	21	6	53
Nitrate division.....	28	49	51	128
Field service.....	339	840	159	1,338
Total.....	454	1,068	361	1,883

Mr. ANTHONY. Now, you have the appropriation divided and another item is manufacturing arsenals and establishments?

Gen. PEIRCE. Yes, sir; that is one of the two large divisions of the Ordnance Department and on the next page you see the rest, the field service establishments.

Now, I would like to have Maj. Harris go into details with you on this item of manufacturing establishments.

MANUFACTURING ARSENALS AND ESTABLISHMENTS.

Mr. ANTHONY. You call your manufacturing arsenals and establishments those five plants that we enumerated at the beginning of this subject?

Maj. HARRIS. There are several others there that are manufacturing establishments. One or two of them are in a stand-by condition where there is no manufacturing work going on; but they are reported as manufacturing arsenals.

Mr. ANTHONY. For instance, what are you doing at the Amatol Arsenal at the present time; where is that located?

Gen. PEIRCE. That is over in New Jersey.

Maj. HARRIS. Amatol Arsenal is a war plant and is to be sold. The activity at the present time—and the only reason it is not now vacated—is due to the storage space which is utilized in storing war reserves. It is anticipated that these stores will be moved, and when this is accomplished the plant will be salvaged.

Mr. ANTHONY. What did you use to make there?

Maj. HARRIS. That was a shell-loading plant, for the filling of high explosives in shells.

Mr. ANTHONY. And what supplies are there now?

Maj. HARRIS. We have a quantity of T. N. T., smokeless powder empty shells, loaded shells, and various metal components of ammunition.

Mr. ANTHONY. But it is your intention to transfer that and dispose of the property?

Maj. HARRIS. Yes, sir; but it will probably be a year or two before that is accomplished. In the meantime we are selling——

Mr. ANTHONY. Have you had an offer on that property?

Maj. HARRIS. No, sir. But the property aside from the storage area and certain special machinery has been released to the salvage organization for sale, and it is now being opened up to sale.

Mr. ANTHONY. What do you do at the Chicago storage depot?

Maj. HARRIS. At the Chicago storage depot there was a manufacturing plant built during the war of a permanent nature and of rather large capacity. The buildings were practically completed, I think, at the time of the armistice, but the machinery had not been installed, although it was purchased and on hand. After analyzing the various ordnance plants with a desire to determine what should be held and what released it was determined by a board of senior officers that that plant should be held as reserve manufacturing facilities for the steel parts of ammunition, and we have there at the present time a large quantity of machinery stored for such manufacturing.

Mr. ANTHONY. The building is not equipped with machinery?

Maj. HARRIS. The machinery is in the building, but not set in place, and the countershafting and that class of utilities have not been installed.

Mr. ANTHONY. You use the rest of the space in the building for storage space?

Maj. HARRIS. We use the rest of the space for storage of special surplus machinery as additional reserves in the manufacturing of shell.

Mr. ANTHONY. Is there any other place in the Army where you are storing your reserves of machinery?

Maj. HARRIS. One other place of that character is the Frankford Arsenal.

Mr. ANTHONY. Does this require all this land for that purpose?

Maj. HARRIS. Yes, sir; in general it does.

Mr. ANTHONY. I notice they have there 47 acres of ground. Where is it located, within the city limits of Chicago?

Maj. HARRIS. It is, I think, at about One hundred and tenth Street on the south side; and is an "L" shaped tract of land with a group of buildings in the upper end of the upright portion of the "L," and the railroad facilities are more in the lower end. All the land is occupied by the plant and there is plenty of room for expansion. I should say at the present time that the existing buildings occupy probably 30 per cent of the ground.

Mr. ANTHONY. Well, is it good business judgment to utilize a plant and buildings valued at \$7,000,000 for storage purposes alone?

Maj. HARRIS. It is not only storage, but it is a war measure that causes its retention.

Gen. PEIRCE. For a manufacturing plant.

Mr. ANTHONY. You make no allowance here for the Dayton branch aircraft?

Maj. HARRIS. We allow \$5,000 and that is for clerks engaged in finance and similar work which is covered by ordnance service.

Mr. ANTHONY. What ordnance operations are there at Dayton?

Maj. HARRIS. That is the air service on McCook Field, an air development center; and in order that we may keep our department in touch with theirs we maintain an engineering staff.

Mr. ANTHONY. What use are you making of the Erie howitzer and Rochester gun plant?

Maj. HARRIS. The Erie howitzer plant?

Mr. ANTHONY. That is Erie, Pa., and Rochester, N. Y.

Maj. HARRIS. Yes, sir; both plants referred to are war construction. They were built for the manufacture of guns and the Erie plant is being retained for the manufacture of 155-millimeter howitzers and for 4.7 guns.

Mr. ANTHONY. Is that a plant that is being reserved in its entirety for preparedness purposes?

Maj. HARRIS. It is at the present time, although on two successive occasions we have proposed to congressional committees that it be sold and the proceeds of the sale utilized for the extension of facilities at the Watervliet Arsenal, which is our main cannon-manufacturing center.

Mr. ANTHONY. Has an attempt been made to sell it?

Maj. HARRIS. We have had tentative bids, but no attempt has been made to sell it, because we are not willing to say it should be sold unless we can expand Watervliet, and so far the Congress has not approved the sale with the proviso that we utilize those funds on Watervliet.

Mr. ANTHONY. Which committee?

Maj. HARRIS. The Appropriations Committee in the sundry civil bill last year, and likewise this year.

Mr. ANTHONY. What are you using the Erie and Rochester plants for, storage?

Maj. HARRIS. They have the facilities there for the manufacturing of guns; and they are being used for the storage of those facilities and somewhat for the storage of other facilities which have not as yet been cleared out; there are no manufacturing activities; and there are only caretakers on the grounds.

Mr. ANTHONY. Is there a market for these buildings at this time?

Maj. HARRIS. The market is probably poorer now than it was 18 months ago; but there has been some nibbling, particularly at Erie.

Mr. ANTHONY. Who determines whether plants of this character shall be retained or sold?

Maj. HARRIS. Right after the armistice the Chief of Ordnance having a large number of plants remaining, convened a board of senior officers within his department and they recommended a policy of retention of some and disposal of others; and that was put up to the Secretary of War and has received the approval of the War Department as a tentative proposition, but carrying the proviso that

the expenditure of funds thereunder would have to have separate approval.

Mr. ANTHONY. And you had to come to Congress to ask for consent for the sale because it involved the sale of real estate?

Maj. HARRIS. The reason we had to come to Congress was more to ask them to let us use what we got for it for another purpose.

Mr. ANTHONY. Then you have the authority to sell it, you think, without the authority of Congress.

Maj. HARRIS. That is a little deep for me.

Mr. ANTHONY. How about that, General?

Gen. PEIRCE. I should think it would be in the same case as all other war plants we have disposed of.

Mr. ANTHONY. We were informed either this morning or yesterday that the War Department does not consider that it had authority to sell the abandoned military posts, for instance, or any abandoned real estate that is owned by the War Department.

Gen. PEIRCE. I think this, sir, comes under the general authority to dispose of war property.

Maj. HARRIS. I might state in that connection that in the discussion before the Appropriation Committee the chairman rather intimated that we might hold it, if the cost was not prohibitive that we might hold it another year; but that was just an intimation.

Mr. ANTHONY. You told us what you were doing at Frankford Arsenal; what are you doing at Picatinny Arsenal?

Maj. HARRIS. Picatinny Arsenal—that was an arsenal built before the war for the manufacture of smokeless powder and had a capacity on an 8-hour basis of about 5,000 pounds a day, with a maximum capacity of 10,000, and it also had some experimental capacity for the manufacture of explosive “D.”

Mr. ANTHONY. Is it being operated at this time?

Maj. HARRIS. Yes, sir.

Mr. ANTHONY. How large a force have you there?

Maj. HARRIS. A total number of employees of about 680.

Mr. ANTHONY. Making powder, are they?

Maj. HARRIS. Making some powder; we are doing a great deal of experimental work on explosives and ammunition in general; it is our development center for ammunition.

Mr. ANTHONY. Why do you have to manufacture powder now with such a tremendous amount of it on hand?

Maj. HARRIS. Well, although we have over 275,000,000 pounds of powder on hand we have not gotten the powder for the 16-inch guns which are new, and there are some other calibers where the stocks are not balanced to our requirements; so the manufacture is to fill that need.

Mr. ANTHONY. You told us what you were doing at the Rock Island Arsenal; you told us about Springfield; what is there at Tullytown?

Maj. HARRIS. Tullytown is another war plant but has been released for salvage; the conditions there are comparable with Amatol, and we will vacate as soon as we can clear out storage.

Mr. ANTHONY. What State is that in?

Maj. HARRIS. That is near Philadelphia, about 15 or 20 miles from Philadelphia, on the Pennsylvania Railroad.

Mr. ANTHONY. What did you manufacture there?

Maj. HARRIS. That was a plant for the assembly of smokeless powder into charges for separate-loading ammunition.

Mr. ANTHONY. It is just being used for storage now?

Maj. HARRIS. Storage alone, sir.

Mr. ANTHONY. And will be sold?

Maj. HARRIS. As soon as the storage can be cleared out.

Mr. ANTHONY. Watertown and Watervliet you told us about. What is this Aberdeen storage area?

Gen. PEIRCE. Now, sir, you are coming into the field service now.

Mr. ANTHONY. That is under a separate item?

Gen. PEIRCE. Maj. Stuart will handle that.

FIELD-SERVICE ESTABLISHMENTS AND ACTIVITIES.

Mr. ANTHONY. For the field-service establishments and activities you estimate \$3,888,000, of which amount you say that \$2,348,000 is absolutely necessary?

Maj. STUART. Yes, sir.

Mr. ANTHONY. That covers field-service establishments and activities. Just what are those activities?

Maj. STUART. The field-service establishments and activities consist primarily of the large plants, converted manufacturing plants or plants which were designed and built as storage depots for the storage of our ordnance material. The principal work to be done during the next year, as Gen. Peirce has said, is the movement of our ammunition to the magazines which are now being constructed at Ogden, Utah, and Savannah Proving Ground, Illinois. They were provided for by an appropriation of \$5,000,000 under the second deficiency bill last year. Because of delays in construction caused by car shortages and various other factors we will not have them completed—rather the construction will be prolonged or delayed so that we will not be able to finish the movement by the end of this fiscal year.

Mr. ANTHONY. For that reason you have to use a number of these old manufacturing plants for storage purposes?

Maj. STUART. Yes, sir; what we are trying to do now is to give up as soon as possible all the temporary plants which we had to utilize right after the armistice on account of the pressure we were under to remove these dangerous materials and the materials which were collecting at the manufacturing plants in order that they could get back to peace-time production. We are now pushing as fast as possible the work of clearing out those plants so that we can turn them over for salvage.

Mr. ANTHONY. Now, you enumerate 24 different plants under the head of field-service establishments.

Maj. STUART. Yes, sir.

Mr. ANTHONY. How many of those are active manufacturing plants?

Maj. STUART. None of them; those are all storage plants.

Mr. ANTHONY. How many of them do you intend to dispose of?

Mr. STUART. We will dispose of eight.

Mr. ANTHONY. Now, tell us briefly about some of these regarding which I will ask you. What is there at Aberdeen?

Maj. STUART. At Aberdeen we have 12 large warehouses which are housing certain calibers of artillery, primarily; some tractors and other vehicles. There is no ammunition there.

Mr. ANTHONY. What have you at Augusta—what State is that in?

Maj. STUART. That is in Georgia, Augusta, Ga.; it is an old arsenal used for the storage of small arms and a certain amount of all ordnance material, except ammunition, for issue to the troops in that section of the country. The only work going on there has been the overhauling of material which was in storage.

Mr. ANTHONY. What is there now at Benicia Arsenal, Calif.?

Maj. STUART. Benicia Arsenal is similar to Augusta. It is an old arsenal used for supplying the west coast with all kinds of ordnance material.

Mr. ANTHONY. Any manufacturing being done there?

Maj. STUART. No, sir.

Mr. ANTHONY. An appropriation has been suggested in Congress and bills are pending, to provide manufacturing facilities at Benicia. Would it be an economy to the Government to manufacture ordnance supplies on the Pacific coast rather than to manufacture them at your present plants in the interior and ship them out there?

Maj. STUART. That is a question which I would rather refer to one of the officers connected with manufacturing.

Gen. PEIRCE. I think the attitude of the Chief of Ordnance, Mr. Chairman, is that there are on hand now ample manufacturing facilities to the extent that he would recommend the retention of any that, therefore, further expenditure at this time for additional facilities would be made presumably only upon the determination by Congress that such course was, after full consideration, advisable.

Mr. ANTHONY. Where is the Charleston general ordnance depot?

Maj. STUART. It is about 12 miles north of Charleston, S. C.

Mr. ANTHONY. Is that a war plant?

Maj. STUART. It was constructed during the war for the forwarding of ammunition overseas. The facilities there are of a permanent character; and in the project which we presented to the Appropriations Committee in the second deficiency bill we proposed to retain it for a storage of a part of our ammunition reserves to be used as a reserve for that section of the country, and also to avoid any reconstruction that we might possibly do without.

Mr. ANTHONY. Where is Curtis Bay depot?

Maj. STUART. Curtis Bay is about 7 miles from Baltimore; it is one of the arms of the bay.

Mr. ANTHONY. Is that of permanent construction?

Maj. STUART. It is very much the same as the Charleston depot.

Mr. ANTHONY. And you are retaining that for the same purpose?

Maj. STUART. Yes, sir.

Mr. ANTHONY. Where is the Delaware ordnance depot?

Maj. STUART. That is nearly opposite Wilmington in New Jersey.

Mr. ANTHONY. Is that of permanent construction?

Maj. STUART. It is the same as the Charleston and Curtis Bay depots.

Mr. ANTHONY. And all three of these depots are filled with--

Maj. STUART. Ammunition.

Mr. ANTHONY. Ammunition—ordnance stores and ammunition?

Maj. STUART. Yes, sir.

Mr. ANTHONY. What is the Erie Proving Ground and where is it?

Maj. STUART. The Erie Proving Ground is near Toledo, Ohio. It was used during the war as a proving ground and we have since then constructed 26 warehouses in which we are storing a large amount of guns, carriages, and vehicles, artillery supply trucks, and various nonexplosive and nonhazardous materials. The proving-ground facilities there are still intact, and in case of war it could be used in addition as a proving ground.

Mr. ANTHONY. What does a proving ground mean; does it include an artillery firing range?

Maj. STUART. Yes, sir.

Mr. ANTHONY. How long a range have you there?

Gen. PEIRCE. The range at Erie?

Maj. STUART. It is indefinite; you can fire over the water for 30 or 40 miles.

Mr. ANTHONY. Is it necessary to maintain more than one of the long artillery ranges and proving grounds?

Maj. STUART. Erie is being used primarily as a storage depot; we have to have it for storage and as long as we do not need to disturb the proving-ground facilities we have not salvaged them.

Mr. ANTHONY. The ordnance storage depots at Hawaii and Manila are necessary because of the occupation of those points by troops?

Maj. STUART. Yes, sir.

Mr. ANTHONY. What is the Middletown General Ordnance Depot?

Maj. STUART. That is a——

Mr. ANTHONY. Is that in Ohio?

Maj. STUART. No, sir; that is near New Cumberland, Pa., near the big Army reserve depot there. The air service is very anxious to secure it for use in connection with their aviation depot there and they want authority to transfer it to them.

Mr. ANTHONY. They want to use that for the storage of supplies?

Maj. STUART. I do not know what they want that for.

Mr. ANTHONY. Where is the General Morgan ordnance depot?

Maj. STUART. That is near South Amboy, N. J. It is on the lower bay.

Mr. ANTHONY. Is that permanent?

Maj. STUART. No, sir; that is to be salvaged just as soon as we can move the material out.

Mr. ANTHONY. Ogden Arsenal is one of the storage plants that is now under construction?

Maj. STUART. Yes.

Mr. ANTHONY. You have the Old Hickory Powder Plant on this list. Has not that been sold?

Maj. STUART. That has been sold, but we have retained the use of part of it for a period of five years, with the privilege of renewal, for the purpose of the storage of powder that is now at that point, and for which we have no other facilities elsewhere.

Mr. ANTHONY. What did you sell there, the plant and machinery?

Maj. STUART. Yes, sir; the whole plant except the magazines and the buildings in which we had the smokeless powder.

Mr. ANTHONY. What was the sale price, do you remember?

Maj. STUART. \$3,050,000, approximately.

Mr. ANTHONY. You carry it as of the value of \$5,000,000.

Maj. STUART. The question of the sale price is simply the amount, as I remember it, in the contract. Of course a large amount of material was sold before the plant as a whole was sold, in other words, loose material. The sale has been going on for a long time.

Mr. ANTHONY. Do you recall how much the Old Hickory plant cost?

Maj. STUART. Practically \$90,000,000.

Mr. ANTHONY. And you sold it for \$3,500,000?

Maj. STUART. That simply represents what was left after a large amount of loose material had been sold.

Mr. ANTHONY. But it represents the actual physical plant, does it not?

Maj. STUART. Yes, sir; the buildings.

Mr. SLEMP. \$9,000,000 is the total.

Maj. STUART. My recollection is something like \$8,000,000 was realized for the loose material alone that had been sold previous to the selling of the buildings and facilities.

Mr. ANTHONY. The Panama storage depot is incidental to the occupation by troops?

Maj. STUART. Yes, sir.

Mr. ANTHONY. Where is the Pig Point general ordnance depot?

Maj. STUART. That is near Norfolk, Va., on Hampton Roads, and it is in the same class with Charleston, Delaware, and Raritan.

Mr. ANTHONY. Are they permanent buildings?

Maj. STUART. Yes.

Mr. ANTHONY. What are they constructed of?

Maj. STUART. There are four different types of buildings. The storage of ammunition is rather complicated. You can not store all kinds of ammunition in the same building. The ammunition itself, the loaded shell, is stored in a large building 50 by 200 feet, and they are spaced 300 feet apart. The smokeless powder is stored in a different type of building entirely. That has a corrugated asbestos wall, with a wooden floor; it is lined on the inside and has a gypsum slab roof. The high explosives are stored in hollow tile buildings, in small units of about 1,000 square feet, and they are spaced 800 feet apart. They have to comply with the American table of distances and also in some States with the State law, which prescribes the distance apart that the units must be placed, with certain given capacities. It is a rather complicated proposition. Then the general material, the inert material, is stored in standard warehouses about 160 by 600 feet.

Mr. ANTHONY. Are these warehouses constructed of concrete or wood?

Maj. STUART. The warehouses are constructed of brick with a wooden roof supported by posts, with fire walls between.

Mr. ANTHONY. The next is Raritan, N. J., arsenal. What type is that?

Maj. STUART. That is the same type as Curtis Bay and Pig Point.

Mr. ANTHONY. Permanent also?

Maj. STUART. Yes, sir.

Mr. ANTHONY. San Antonio arsenal.

Maj. STUART. That is an old arsenal of before-the-war type, which is used for the supply of all troops in that section of the country particularly the border.

Mr. ANTHONY, Savanna Proving Ground, Ill.

Maj. STUART. There we have three different activities or functions; that is, the storage of ammunition for which the magazines now are being constructed, the storage of artillery and vehicles for which we constructed some 40 big warehouses, and it can also be used as a proving ground in the case of emergency. It can still be used as in the case of Erie. We try not to disturb that.

Mr. ANTHONY. Are you storing any explosives there?

Maj. STUART. Yes, sir; there are some 30 magazines; seven and a half million pounds.

Mr. ANTHONY. Are you putting any of that in the ground, or all above the ground?

Maj. STUART. All above ground.

Mr. ANTHONY. There was some talk about putting it under ground.

Maj. STUART. That is not feasible, for a number of reasons. The type of building which we developed during the war for high explosives was developed by those who were probably the foremost authorities in the country on that class of storage. It is a unit which is of hollow tile, and has a gypsum slab roof, so that in case of explosion it breaks into small fragments, and there are no large masses of debris thrown considerable distances.

Mr. ANTHONY. Where is the Seven Pines General Ordnance Depot, and what character of construction is it?

Maj. STUART. It is 7 miles from Richmond. It was formerly a bag-loading plant, but is to be abandoned as soon as we can move the material out.

Mr. ANTHONY. Is it permanent construction?

Maj. STUART. No, sir; it is sort of semipermanent. It can be made suitable for some classes of material. For instance, we are now negotiating with some parties for the conversion of it into a tobacco storage plant.

Mr. ANTHONY. That will be salvaged?

Maj. STUART. Yes, sir.

Mr. ANTHONY. What have you at the Sparta General Ordnance Depot?

Maj. STUART. At the Sparta General Ordnance Depot we have entirely high-explosive storage.

Mr. ANTHONY. Wisconsin?

Maj. STUART. Yes, sir. It is near La Crosse and contains entirely high explosives.

Mr. ANTHONY. The next is the Toledo storage depot.

Maj. STUART. The Toledo, Ohio, plant was formerly Nitrate Plant No. 3. We have taken that over because there is a large amount of space of permanent construction, and by using the Toledo plant we can get out of a number of these other temporary plants which are very much more expensive to maintain, so that we will probably use Toledo for a very long time to come for the storage of inert material. It is too near the city of Toledo for explosives.

Mr. ANTHONY. What is the Wingate General Ordnance Depot?

Maj. STUART. That is also for high explosives.

Mr. ANTHONY. New Mexico?

Maj. STUART. Yes, sir.

Gen. PEIRCE. That is where we sent all of that T. N. T. that was covering the face of the earth at the time of the armistice.

Maj. STUART. The situation is very unsatisfactory both at Sparta and Fort Wingate, and we had an item in the sundry civil bill which would authorize the construction of permanent magazines at Fort Wingate, but that was not allowed at this time.

Mr. ANTHONY. Where is the Penniman general ordnance depot, which you said we had abandoned, and the stores reapportioned?

Maj. STUART. That is near Williamsburg, Va., and will be abandoned after we have moved out the material now in storage there.

Mr. ANTHONY. Is that of a temporary or a permanent type?

Maj. STUART. Largely temporary.

Mr. ANTHONY. Where is the Woodbury general ordnance depot?

Maj. STUART. That is near Philadelphia, about 7 miles down the river.

Mr. ANTHONY. That is to be abandoned?

Maj. STUART. That is also to be abandoned.

Mr. ANTHONY. That covers your field service establishments. Now, this \$2,348,000, which you say is absolutely necessary for the care of these establishments, will be spent most largely for what purpose, the care of these plants and the civilian overhead necessary to protect them, and the handling of the stores in connection therewith?

Maj. STUART. It is primarily for the movement to Ogden and Savanna and for the redistribution—that is, the rearranging—of the stores so that we can get at them. For instance, smokeless powder is subject to spontaneous combustion and decomposition. We have a sample of each lot under constant tests. If any lot should show that it is deteriorating, we immediately withdraw from the magazines the ammunition, whether it is fixed ammunition or bulk powder, or in the form of charges, which contains that lot, and in order to be able to do that we must have the ammunition so arranged that we know where our lots are. A great deal of that has been done, but some of it will remain to be done after the first of the year.

Mr. ANTHONY. The appropriation does not involve carrying on any of the activities at these plants other than those connected with the care and handling of the stored materials?

Maj. STUART. Yes, sir, that is correct.

Mr. SLEMP. I did not quite get that. Do I understand that you do not spend any money for the care of the ammunition; that that remains in the maintenance charge?

Maj. STUART. No, sir; that is primarily for the handling of material and the rearranging of stores and in shipping out.

Mr. SLEMP. Suppose you have a plant where you do not expect to send any material out or in?

Maj. STUART. Then the only expense is connected with the guarding and the fire protection.

Mr. SLEMP. That is not paid out of this appropriation?

Maj. STUART. Yes, sir.

Mr. SLEMP. Then it would be maintenance.

Maj. STUART. Well, by maintenance I mean the repair of buildings, painting roofs, etc.

Mr. SLEMP. I had reference to the protection of the ammunition and supplies inside of the building.

Maj. STUART. That is a different meaning of the term. By the term maintenance we ordinarily mean the repair of buildings and keeping them in shape, painting, etc.

Mr. ANTHONY. Do you still maintain a salvage board in the Ordnance Department?

Maj. STUART. Their activities are rapidly dwindling. They are still in existence, but Gen. Peirce could probably tell you more about that.

Mr. ANTHONY. Do you still maintain a salvage board in the Ordnance Department, Gen. Peirce?

Gen. PEIRCE. Yes, sir.

Mr. ANTHONY. How many civilian employees are there on that board?

Gen. PEIRCE. Connected with the salvage board here in Washington at the present time there are 20. There are branches of the salvage board—subsidiary boards—at a number of other places, most of which were usually former district offices.

Mr. ANTHONY. Does this appropriation for field-service establishments take care of the pay for any of those salvage boards?

Gen. PEIRCE. We do not expect to have any of those after June 30. None is included here for that purpose.

Mr. ANTHONY. You expect to wind them up?

Gen. PEIRCE. Yes.

MAINTENANCE OF ABERDEEN PROVING GROUND.

Mr. ANTHONY. At Aberdeen proving ground you say that \$150,000 is absolutely necessary?

Gen. PEIRCE. Col. Ruggles will answer any questions about that.

Col. RUGGLES. That item we would like to reduce to \$144,500.

Mr. ANTHONY. Is this money for the purpose of carrying on the activities at the Aberdeen proving ground?

Col. RUGGLES. Yes; it is for the purpose of carrying on certain of the overhead activities, such as receiving and issuing stores, clerks engaged on property work, accounting for property, and heat for such buildings as there are there not connected with manufacture or experiment, and lighting not connected with manufacture or experiment, water supply not connected——

Mr. ANTHONY. Why do you separate the Aberdeen proving ground from the other field-service establishments?

Col. RUGGLES. The Aberdeen proving ground is not a field establishment.

Mr. ANTHONY. It is not?

Col. RUGGLES. No.

Mr. ANTHONY. That is different from the Aberdeen storage area?

Col. RUGGLES. We took advantage of some ground that we had at the Aberdeen proving ground and put up some storage houses, which area was called the Aberdeen storage area.

Mr. ANTHONY. The Aberdeen proving ground is where you are conducting your main firing tests with ordnance?

Col. RUGGLES. Everything from a .22-caliber pistol to a 16-inch gun is tested there.

Mr. ANTHONY. You have an extreme range there of about 36 miles, I believe.

Col. RUGGLES. Yes; I should say that. There is no real limit to the water range. We can get 50 miles. You have to go over a little

point of land, but I do not think anyone outside the proving ground would know it. We have a land range of over 17 miles.

Mr. ANTHONY. What is the longest distance you have ever fired a projectile?

Col. RUGGLES. We have fired guns up to about 41,000 or 42,000 yards. Our 16-inch guns, which will be there very soon, will have a range of from 50,000 to 53,000 yards.

Mr. ANTHONY. How many miles is that?

Col. RUGGLES. Something over 30 miles. We can shoot from Baltimore from the proving ground.

Mr. ANTHONY. The question will probably come up again. Has there been anything new in regard to the 70-mile guns that we read about during the war?

Col. RUGGLES. No; there is nothing new about that. That is entirely a possibility. There is no difficulty.

Mr. ANTHONY. But our Ordnance Department has never considered it worthy of going further with?

Col. RUGGLES. No; it is a freak proposition; it is not a practical thing.

Mr. ANTHONY. If you wanted to, you could build a large gun which would send a shell that far?

Col. RUGGLES. Without any difficulty at all. The 18-inch gun for example, is not in the same category as the gun you are talking about. We can take an 18-inch gun and get a range of 60,000 or 70,000 yards. That is only another step in development of high-power guns. We do not know when it will come.

Mr. ANTHONY. You are confining your ranges and keeping them down so as to keep within the range of accuracy, is that the idea?

Col. RUGGLES. No.

Mr. ANTHONY. In other words, there is no object in getting a tremendous long range, if you can not hit anything with it?

Gen. PEIRCE. This is the point, I think, Mr. Chairman. These very long range guns you are speaking of could shoot only at very large targets, such as cities, and we do not believe in shooting up cities, and therefore, in its present stage of development, it is not a weapon of any particular value.

Mr. ANTHONY. Also, if you get a gun of that extreme range, you can not carry an extremely large explosive force in the shell?

Gen. PEIRCE. That one certainly did not have it.

Col. RUGGLES. That is true to a certain extent of these extreme ranges, because they are obtained generally by a very long bore with respect to the caliber, generally by reducing the caliber but not the length of bore. They took a big seacoast gun and reduced its caliber so as to make the length of the bore with respect to its caliber very great. As far as accuracy is concerned, the Artillery are now experimenting with observation from the air in airplanes and balloons, and it is difficult to say what the range will be beyond that which you can observe with accuracy. I do not see any reason why a long range gun should not be just as accurate, and it is just as accurate, as a shorter range gun. The difficulty there is in observing the fire.

Mr. ANTHONY. Do you carry out all of your big-gun testing at Aberdeen?

Col. RUGGLES. Yes.

Mr. ANTHONY. Do you fire any more at Sandy Hook?

Col. RUGGLES. No; Sandy Hook has been abandoned.

Mr. SLEMP. What other appropriation are you asking for at Aberdeen, in addition to this, that appears in other bills?

Col. RUGGLES. We are asking for \$600,000 under proving grounds, Army, which used to be proving ground, Sandy Hook. This appropriation is carried in the fortification bill. It is for the current expense of testing everything from small arms to the 16-inch gun, including bombs, tractors, tanks, and all war material at the proving ground during the next year.

Mr. SLEMP. Are you asking for any construction work under the sundry civil bill, for example?

Col. RUGGLES. There are a couple of small items, one of them for the construction of a trestle and bins in connection with the power plant. That is an item of \$25,000 asked for, \$20,000 authorized, representing a small amount of work carried in the original plans and never finished.

Mr. SLEMP. The total amount of money that you are requesting for Aberdeen will be, taking all this together, about \$780,000.

Col. RUGGLES. It is my recollection that we have \$60,000 under "Repair of arsenals." I forgot to mention that.

Mr. SLEMP. Making something over \$800,000?

Col. RUGGLES. And then these particular items for which \$40,000 was tentatively authorized, but for which we asked \$90,000. Do you wish me to add the amounts that we are asking, or those that were given?

Mr. SLEMP. I am trying to get in one lump sum the amount of money you would like to have at Aberdeen.

Col. RUGGLES. The amount we have asked for, rather than what was appropriated? We asked for \$90,000 for those two small constructions and were given \$40,000.

Mr. SLEMP. Then, do you get money from the various fortifications appropriations for use at Aberdeen?

Col. RUGGLES. We do when the appropriation "Proving grounds, Army," has been exhausted. As a matter of fact, before the war the appropriation "Proving grounds, Army," was very small. It represented about from one-third to one-fourth of the expenditures of the proving ground for testing, the balance being made up from the manufacturing appropriations.

Mr. SLEMP. How much did you get for your work at Aberdeen for this fiscal year out of these items in the fortifications bill?

Col. RUGGLES. We have had set aside \$150,000, of which we have spent none so far, and we will not spend it for testing if we can avoid it.

Mr. SLEMP. For this coming fiscal year will you expect to get any money out of these various appropriations for use at Aberdeen; I mean at the proving ground itself?

Col. RUGGLES. I would like to answer that question rather indirectly. The proving ground is the neck of the bottle. There is no use of making and developing a new piece of ordnance unless you can test it.

Mr. SLEMP. I was just trying to get, if you will pardon me, not the reason for it or the justification for it, but what amount do you expect to get.

Col. RUGGLES. If we get \$600,000 under "Proving grounds, Army," I expect we shall not be obliged to call upon the manufacturing appropriation to help out.

Mr. SLEMP. Then that means, lumping it all together, an estimated expectancy of something over \$800,000 for the Aberdeen works.

Col. RUGGLES. Something of that kind. I will say that last year we estimated \$900,000 and we got \$350,000. The Senate raised it to \$550,000, I think, but the House conferees insisted upon the original sum of \$350,000. There was some manufacturing money that was carried over under a number of "approved projects" which helped us out somewhat, but we are firing now just one round out of three that we are required to fire.

Mr. SLEMP. That particular feature will come in under the fortifications bill?

Col. RUGGLES. I will say that we are not keeping up with the work.

Mr. ANTHONY. Then this \$144,000 that you say is absolutely necessary is to take care of the civilian employees and the expense of keeping the proving grounds going through the year?

Col. RUGGLES. It is for certain specific overhead expenses such as I have outlined.

Mr. ANTHONY. And the specific expense of the actual firing of the guns is taken care of out of an additional appropriation?

Col. RUGGLES. Yes.

Mr. ANTHONY. This takes care of the organization you have there?

Col. RUGGLES. This takes care of a part of the overhead, not all of it. It is used at the proving ground in exactly the same way that Ordnance service is used at the manufacturing arsenals.

NITRATE ESTABLISHMENTS.

Mr. ANTHONY. We will now take up the nitrate establishments.

Gen. PEIRCE. I will have Maj. Burns take charge of those items.

Mr. ANTHONY. Maj. Burns, are you in charge of the nitrate establishment?

Maj. BURNS. Yes, sir.

Mr. ANTHONY. You are asking for \$248,000 here.

Maj. BURNS. Yes, sir.

Mr. ANTHONY. How many nitrate establishments have we?

Maj. BURNS. We have two principle ones, what is called United States nitrate plant No. 1, at Sheffield, Ala., and United States nitrate plant No. 2, at Muscle Shoals, Ala., about 5 miles distant.

Mr. ANTHONY. And No. 3 is the one at Toledo?

Maj. BURNS. That has been turned over for salvage. We have nothing more to do with it. There was also a No. 4 plant started which has likewise been turned over for salvage. Then we have two adjuncts to the nitrate plant at Muscle Shoals, or a power plant at Gorgas, Ala., and a transmission line connecting the Gorgas power plant with the No. 2 plant at Muscle Shoals, Ala.

Mr. ANTHONY. What do you propose to use this money for at these nitrate plants?

Maj. BURNS. This is for guarding and taking care of the plants until Congress has made its decision as to what the future of these establishments shall be.

Mr. ANTHONY. There is practically no work being carried on there is there?

Maj. BURNS. There is a construction program being completed at the No. 2 plant that was authorized by the Secretary of War, but that is the only activity going on at any of the plants except guarding and maintenance.

Mr. ANTHONY. What kind of construction?

Maj. BURNS. It is the completing of certain parts of the plant that had not been finished at the time of the armistice, and perfecting some minor troubles that developed in the trial run of the plant. The objective is to make it a rounded out and effective military high explosive plant.

Mr. CRAMTON. How much are the expenditures for rounding out the parts?

Maj. BURNS. \$1,250,000.

CIVILIAN EMPLOYEES.

Mr. ANTHONY. How many civilian employees do you figure on having there for the next fiscal year for this work of guarding and preserving the plants?

Maj. BURNS. For all of the nitrate establishments we figure on having approximately 200 employees. These would be paid partly out of "Ordnance service" and partly out of "Repairs of arsenals."

Mr. ANTHONY. The bulk of the appropriation, then, is for the pay of these employees?

Maj. BURNS. Yes, sir.

Mr. SLEMP. About \$1,000 a year?

Mr. ANTHONY. How are those employees organized, into plant police, or simply civilian watchmen?

Maj. BURNS. Of course, we have to have our overhead or office organization to supervise and to care for money, property, and personnel matters, and then we have to have a certain maintenance force to preserve the plants and then we have our guarding force. There are some 2,600 people living at No. 2 plant, and 250 at No. 1 plant, from which the Government obtains a rental return of some \$80,000 per year.

Mr. ANTHONY. Is it a regular guard organization?

Maj. BURNS. Yes, sir; a regular guard organization.

Mr. ANTHONY. A uniformed organization?

Maj. BURNS. Yes, sir. They have uniforms which we require them to wear.

Mr. ANTHONY. So that they will be able to show that they are guards?

Maj. BURNS. Yes, sir.

Mr. ANTHONY. How long have you been connected with the nitrate work?

Maj. BURNS. Since June, 1919, sir.

Mr. ANTHONY. While it has not anything directly to do with this appropriation, I would like to get an idea of your general opinion about the situation at the nitrate plants there. Do you believe that they are capable of practical operation?

Maj. BURNS. There is no question in my mind but what No. 2 plant, which is the large one, is capable of practical operation and economical operation, with the water power from the dam that is being constructed.

Mr. ANTHONY. You would not recommend its operation with steam power?

Maj. BURNS. I think the margin between the operating costs and selling costs with steam power is so small that it would be very questionable. There is a slight margin, but it is very small.

Mr. ANTHONY. From your investigations and your familiarity with the plant, do you think that with water power it would be possible to produce nitrate that can be used for fertilizer purposes in this country at a price which would compare favorably with the cost of importing the same nitrate from Chile?

Maj. BURNS. Yes, sir. To give you some specific figures, Mr. Chairman, we believe that we can produce ammonium sulphate at that plant, which is a very satisfactory form of nitrogen fertilizer, for approximately \$48 a ton, exclusive of interest and depreciation. We believe, as the result of studying the curve of selling prices for some 20 years, that we can unquestionably count on a selling price of \$65 a ton, and perhaps more. That gives you a margin of \$17 a ton.

Mr. ANTHONY. You mean that it costs that much to import Chilean nitrate from Chile?

Maj. BURNS. No, sir; ammonium sulphate is not imported from Chile; it is manufactured in the United States, but our curve indicates that the selling price for ammonium sulphate will probably be not less than \$65 a ton. The price of ammonium sulphate depends in great measure upon the price of Chilean sodium nitrate, which practically establishes the price of all nitrogen fertilizers.

Mr. ANTHONY. What does the Chilean nitrate cost per ton in this country, manufactured?

Maj. BURNS. At present it is selling in the neighborhood of \$50 per short ton. Everything is sold in the fertilizer business according to the nitrogen content. Ammonium sulphate has practically 33 per cent more nitrogen in it than sodium nitrate, therefore you get 33 per cent more per ton for it.

Mr. ANTHONY. Is the raw nitrate that is sent from Chile applied directly to the land, or can it be applied directly to the land?

Maj. BURNS. It can be applied directly to the land, and is used in large quantities as a top dressing. It is also put in mixed fertilizers in the same way as ammonium sulphate.

Mr. ANTHONY. From your investigation I understand that you think the plant can be practically and economically operated. Is your base that most largely upon the necessity for its continuance as a war preparedness proposition, or as a commercial and agricultural proposition?

Maj. BURNS. The objective of the Ordnance Department and the War Department is primarily nitrogen preparedness. It has been fighting for nitrogen preparedness now for many years, and it believes that is one of its fundamental tasks to accomplish it, if possible. We believe that if this plant is operated at Muscle Shoals we will accomplish nitrogen preparedness, and that is the real reason why we favor its operation. At the same time we believe that it can be operated economically and will be a help to agriculture.

Mr. SLEMP. Are your facilities for the production of nitrates increased by the dam?

Maj. BURNS. Yes, sir; in a way they are, and in another way they are not. The dam would give an excess of the power required for the economical operation of the plant. The plant can be operated with the steam power plant which is now available, but it would not allow of economical peace time operation.

Mr. SLEMP. I said, "Have the facilities been increased?"

Maj. BURNS. No, sir; not the facilities of the plant itself.

Mr. SLEMP. How will this price that you get by the power plant nitrate production compare with the Chilean product as of the year 1913, before the European war?

Gen. PEIRCE. The main point is this. We have this very large plant, with a very large capital invested, which is essential as a measure of war preparedness. Now, we do not believe that it can be maintained from that standpoint, except at a prohibitive expense, without doing anything, purely as a war proposition. If, however, it can be operated for the production of commercial fertilizer during peace times, it will remain in being as a war factory.

Mr. SLEMP. That proposition rests on the answer to my question.

Gen. PEIRCE. As to whether it can be operated economically?

Mr. SLEMP. I was just assuming that the 1913 price of Chilean nitrate would be, when this inflation gets out, the price at which Chile would offer nitrates again?

Maj. BURNS. The price of Chilean nitrate in 1913 was in the neighborhood of \$50 a ton. That would correspond to a price of about \$66 a ton for ammonium sulphate, on account of the difference in the nitrogen content.

Mr. SLEMP. So the burden of that proposition would come quite within what might be called the peace time selling price of the Chilean nitrate?

Maj. BURNS. Yes; we believe the water power would allow the manufacture of ammonium sulphate at a cost of \$48 a ton, as against this selling price of \$66.

Mr. ANTHONY. What is the estimated additional expense to build the dam in order to give you the water power that is desired?

Maj. BURNS. The judgment of the Corps of Engineers is to the effect that the completion of the dam will cost, all told, \$45,000,000. Of that amount \$12,000,000 have already been spent. There are still available \$5,000,000, making a total of \$17,000,000. There will therefore be required, all told, additional appropriations of \$28,000,000. That amount of money would, however, create more power than would be required by this plant.

Mr. DENT. How much power?

Maj. BURNS. There have been various estimates. My own opinion is that the primary power of the dam would be in the neighborhood of 100,000 horsepower, and that there would be in addition secondary horsepower good for at least six months in the year of 275,000 horsepower.

Mr. DENT. That is the lowest estimate that has been made on it, is it not?

Maj. BURNS. Yes; as I say, there are many estimates, but that is my opinion, obtained by studying graphs of the flow of the river.

Mr. SLEMP. To that statement might be added that this was to be added to the \$70,000,000 already expended.

Maj. BURNS. Yes, sir. Of course, that \$70,000,000 is spent.

Mr. ANTHONY. To get back to the appropriation in this bill, does it absolutely require 200 men to guard the two plants?

Maj. BURNS. We have been cutting the organizations down there as hard as we can. The men in charge are constantly saying they can not get along with the amount of money we are giving them.

Mr. ANTHONY. Does that force include a fire department?

Maj. BURNS. Yes, sir.

Mr. DENT. Maj. Burns, in this plant No. 2 you use the cyanamid process, do you not?

Maj. BURNS. Yes, sir.

Mr. DENT. That has actually proven a success?

Maj. BURNS. Yes; it is, in my judgment, the most proven method of fixing nitrogen that exists in the world to-day. It is the one method that is well established in a great many of the countries of the world.

Mr. ANTHONY. Is that the process you started out originally to establish there?

Maj. BURNS. At the No. 2 plant, yes, sir; but at the No. 1 plant a different process was used, what is called the Haber or synthetic process.

Mr. ANTHONY. Statements have been made to various Members of Congress that processes have been established, but particularly this Haber process, the German process, which will supplant the cyanamid process.

Maj. BURNS. Of course, that is thoroughly speculative. The Haber process in America to-day is not a proven thing. We are working as hard as we can in an effort to perfect the Haber system.

Mr. ANTHONY. Is the American Cyanamid Co. to-day fixing nitrate, as you call it, in the Niagara Falls plant, and is it successful and profitable?

Maj. BURNS. Yes, sir: it is fixing nitrogen. Of course, that is a rather new company. For several years, as I understand it, they did not make a profit and were not able to pay dividends, but as a result of the war, or as the result of the development of their organization, or both, they have been operating successfully in the last few years, and have been paying dividends.

Mr. SLEMP. Major, while we are on this subject, it was mentioned on the floor of the House the other day that the European countries had abandoned the making of nitrate through water power, and gone back to steam production, and they gave instances of that abandonment both in Germany and in Switzerland where they had good water-power facilities.

Maj. BURNS. I have heard those statements. Germany to-day as far as we are able to learn, is fixing nitrogen by the cyanamid process. She is also fixing nitrogen by the Haber process in a greater measure. Undoubtedly one of the principal reasons why she uses the Haber process is because she has no available cheap water power. The cyanamid process requires about four times as much power as the Haber process.)

Mr. SLEMP. She has in Switzerland.

Maj. BURNS. Well, the development of nitrogen fixation in Switzerland is not very pronounced.

Mr. SLEMP. But they have German-owned plants in Switzerland which they have abandoned.

Maj. BURNS. I am not too well acquainted with the developments in Switzerland, but I do not believe there are any plants to speak of in that country.

Mr. DENT. They use water power in Norway and Sweden quite successfully, and they get cheap nitrate by reason of that fact.

Maj. BURNS. Yes, sir. They use the arc process, and that consumes more power than the cyanimid process (about five times as much), but on account of its cheapness they are able to do it.

Mr. DENT. At Plant No. 1 you were just experimenting with the Haber process?

Maj. BURNS. Yes.

Mr. DENT. But so far the experiments have not successfully developed?

Maj. BURNS. They have not.

Mr. DENT. And you still think the experiments should continue?

Maj. BURNS. Yes, sir; and we are working on the experiments, and we have confidence that we can make the plant work. As to just what it would cost to produce fixed nitrogen by that process, we do not know, and will not know until the experiment is completed.

Mr. DENT. Then is it not a fact that Germany was enabled to maintain herself as long as she did after she was cut off from Chilean nitrate by the use of their own nitrogen?

Maj. BURNS. There is no question about it. Germany could not supply herself with explosives except through the nitrogen she obtained from the atmosphere, through her fixation plants.

Mr. DENT. I saw a statement recently to the effect that Germany had made nitrogen during the war to a very large extent, and that they were offering to ship 50,000 tons to this country.

Maj. BURNS. Yes, sir.

Mr. DENT. They have a surplus product?

Maj. BURNS. Yes, sir; that is correct.

MILITARY TRAINING.

Gen. PEIRCE. The next item is military training, which will be discussed by Maj. McGregor.

Mr. ANTHONY. How do you intend to spend the \$140,000 that you are asking for at the Ordnance office? Is that in the city of Washington here?

Maj. MCGREGOR. Yes, sir. I am prepared to discuss the \$78,000 of that which is for military training.

Mr. ANTHONY. In what way?

Maj. MCGREGOR. We have three schools, two for officers and one for enlisted men.

Mr. ANTHONY. Where are they located?

Maj. MCGREGOR. We have one school at Aberdeen Proving Grounds, mostly for officers, called the school of application; one at Watertown Arsenal, Mass., called the School of Technology; and the enlisted men's school at Raritan Arsenal, N. J.

Mr. ANTHONY. Will you put in the record the number of student officers at each place, and the number of enlisted men you have under instruction at Raritan?

Maj. MCGREGOR. We have about 250 enlisted men at Raritan, 14 officers at Watertown, and 19 officers at Aberdeen.

Mr. ANTHONY. What is the number of officers authorized by the Ordnance Service?

Maj. MCGREGOR. Three hundred and fifty.

Mr. ANTHONY. How many have you now?

Maj. MCGREGOR. We have 250 now, with 5 pending, which makes 255.

Mr. ANTHONY. How many enlisted men have you authorized?

Maj. MCGREGOR. Four thousand five hundred.

Mr. ANTHONY. How many have you?

Maj. MCGREGOR. About 3,856.

Mr. ANTHONY. These schools are new, are they not?

Maj. MCGREGOR. The two officers' schools have existed since about 1903, and in 1919 they were reorganized and the courses changed quite a bit, and made somewhat better.

Mr. ANTHONY. Is not this a good deal more money than you have been expending heretofore for this purpose?

Mr. MCGREGOR. No; it is almost exactly what it was last year.

Mr. ANTHONY. Then we will not go any further into that part of it. What is the rest of the appropriation to be used for, General?

MECHANICAL LABOR, ETC., OFFICE OF CHIEF OF ORDNANCE.

Gen. PEIRCE. For certian mechanical labor in the office of the Chief of Ordnance, for printing for ordnance establishments, stationery and office supplies, etc. Maj. Rice will handle those matters.

Mr. ANTHONY. What mechanical labor do you have in the office of the Chief of Ordnance?

Maj. RICE. We have three carpenters, one electrician, one paper cutter, two machine operators, two machine helpers, and one laborer.

Mr. ANTHONY. What kind of a machine?

Maj. RICE. These machine operators operate mimeographs, multi-graphs, wire-stitching machines, staple machines, and punching machines.

Mr. ANTHONY. So they are connected with printing activities?

Maj. RICE. Well, that is not exactly printing; it is mimeographing and that class of work.

Mr. ANTHONY. Instead of operating a printing plant you operate a mimeographing plant?

Maj. RICE. I would not like to state it exactly that way.

Mr. ANTHONY. What are you doing, disseminating information by this means?

Maj. RICE. Yes, sir. A great deal of it is for the purpose of using up old forms, in the interest of economy, taking old stationery, cutting new stencils for it, and making it over so that it can be used at the present time. The carpenters are employed in making models of guns, tanks, and other munitions of war, packing boxes, and general miscellaneous work. In addition to their routine work the employees in this department perform all the casual labor needed in the office of the Chief of Ordnance and handle all the surplus office property which is turned over to the General Supply Committee.

Mr. ANTHONY. How much money do you propose to use for these activities?

Maj. RICE. That labor amounts to \$12,540, and we are estimating \$13,900.

Mr. ANTHONY. What else do you provide for under this item?

PRINTING FOR ORDNANCE ESTABLISHMENTS.

Maj. RICE. Printing for Ordnance establishments, \$21,100. That is the printing of blank forms, handbooks, specifications, etc.

Mr. ANTHONY. Where is that done?

Maj. RICE. That is done here in Washington.

Mr. ANTHONY. At the Government Printing Office?

Maj. RICE. Yes; that is done at the Government Printing Office.

Mr. ANTHONY. That covers that item.

Maj. RICE. I might say that that amount, \$21,100, is practically the expense in 1913 and 1914, corrected by the actual increase in the cost of materials at the present time.

Mr. ANTHONY. Gen. Peirce, in looking over the end of the paragraph, I notice that you propose to drop out the proviso "that no money appropriated herein shall be expended for maintenance, repair, or operation of any motor-propelled passenger-carrying vehicle employed wholly or in part for personal, social, or other similar use or for any use except for military and official business." Is that the recommendation of your department?

Col. SMITH. That is the way the estimate was submitted.

Maj. RICE. I can answer that. We do not care about it one way or the other. If the committee wants to put it in, it would be entirely satisfactory to us.

Mr. ANTHONY. When was that put in the first time—last year?

Maj. RICE. Yes. It is a matter of indifference whether it is put in or not. We do not use any vehicles for that purpose at the present time, and do not desire to use any, and if you want to put it in, it is entirely immaterial.

Mr. ANTHONY. What is the next item?

ORDNANCE STORES, AMMUNITION.

Gen. PEIRCE. Ordnance stores ammunition.

Mr. ANTHONY. Under this head you are asking for \$1,900,000. In 1921 there was appropriated \$1,000,000 for this purpose. Will you first let us know whether this amount is dependent on the size of the Army or not?

Gen. PEIRCE. No, sir. That is almost entirely for experimental and development work, and a very large part of it is in connection with the equipment for the Air Service.

Mr. ANTHONY. How much did you expend during the current fiscal year; that is, how much was allotted, and how much has been and will be expended?

Gen. PEIRCE. Have you that data there, Maj. O'Leary?

Maj. O'LEARY. There was \$1,000,000 appropriated, of which there will have been expended at the end of the fiscal year \$800,000, leaving a balance for the beginning of the next fiscal year of \$200,000.

Mr. ANTHONY. You say for the beginning of the next fiscal year. Will it carry over into the next fiscal year?

Maj. O'LEARY. Yes, sir; that is a two-year appropriation, sir.

Mr. ANTHONY. A balance of how much?

Maj. O'LEARY. \$200,000, and in making up the estimates for the next year that amount was taken into consideration.

Col. SMITH. The amount now obligated is \$411,803.11.

Mr. ANTHONY. Where is this money expended, mostly?

Maj. O'LEARY. A considerable part of it is expended at Frankford Arsenal. There is none of it expended at Watervliet, Picatinny, and some small portion of it at Rock Island.

Mr. ANTHONY. You say the principal part of the experimental and development work is along the line of airplane bomb ammunition?

Maj. O'LEARY. Yes, sir.

Mr. ANTHONY. Did you develop a satisfactory type of airplane bomb during the war?

Gen. PEIRCE. For some purposes; yes, sir. How about that, Maj. Borden?

Maj. BORDEN. The bombs which were developed by the United States were practically of the same type as those developed abroad, but no type developed either abroad or on this side can be considered entirely right.

Mr. ANTHONY. Have you made any decided advance over the types that were constructed during the war?

Maj. BORDEN. We are progressing.

Mr. ANTHONY. How large a supply of airplane bombs have you on hand; that is, roughly, not precisely?

Maj. BORDEN. Those are divided into loaded and unloaded bombs. We have approximately 105,000 loaded bombs on hand. There are quite a large number of unloaded bombs. I can put that in the record if you desire.

Mr. ANTHONY. Were not a very much larger number of those manufactured during the war?

Maj. BORDEN. Yes; those are simply the loaded bombs. They represent a very small part.

Mr. ANTHONY. Well, what do you propose to do; use the old cases?

Maj. BORDEN. Yes, sir.

Mr. ANTHONY. They are still available, are they not?

Maj. BORDEN. They are still available and in storage, and will remain in storage until they can be used up.

Mr. ANTHONY. They are a real asset?

Maj. BORDEN. Most of them are; yes, sir. Some of the small types have become obsolescent and will be used simply for training.

Mr. ANTHONY. Of the \$1,901,000 which you are asking for, what figure that \$1,545,000 are absolutely essential, and you put that in Class A?

Maj. O'LEARY. Yes, sir.

BALLISTIC STUDIES OF BOMBS.

Mr. ANTHONY. We will not have time to go into the details of any of these items. I am just going to pick out one or two at random here. For instance, you want \$50,000 for ballistic studies of bombs. What does that employ? What will the ballistic studies of bombs mean? Will that be done by the Ordnance experts, the commissioned personnel, or—

Maj. BORDEN. Both commissioned, civilian, and enlisted. The ballistic studies of bombs is one of the most important items in the estimate. The bombs at present are not at all accurate.

Mr. ANTHONY. That is when they are dropped from the air?

Maj. BORDEN. When they are dropped from the air, their dispersion is very great.

Mr. ANTHONY. I have always contended that you could not hit anything from an airplane.

Maj. BORDEN. That is not entirely true, but there is great dispersion, and there are many problems that are involved, which must be solved in order that we may get a satisfactory bomb.

Mr. ANTHONY. Is this work being carried on in conjunction with the Air Service, or is it paralleling the work they are doing also?

Maj. BORDEN. They are not doing any of this work. This is chargeable to the design and development of the bomb proper.

Mr. ANTHONY. We understood the other day from the Air Service that they were carrying on——

Maj. BORDEN. They are doing no ballistic or development work on bombs. That is an Ordnance function.

Mr. ANTHONY. They are doing practical work of that kind?

Maj. BORDEN. They drop bombs in practice.

Mr. ANTHONY. But they do not go into the study of the ballistics?

Maj. BORDEN. No, sir; they have no facilities for it.

Mr. SLEMP. This development business runs through several pages, and it also appears in the fortifications estimates, in which you use the expression, "For the development of so-and-so, so many thousands of dollars." That has been one of the most difficult things for me to grasp. I understand, when you say you are going to get so many projectiles, or so many bombs, that the unit cost is so much, but when you say you are going to spend \$50,000 in developing a bomb, how do you visualize it?

Gen. PEIRCE. The development includes, of course, first, the design, then the production of the designed article in order to test it, and if the first attempt is not successful as usually it is not, then a determination of what the defects were, and an attempt to correct them in subsequent design, production, and test.

Mr. SLEMP. All I am interested in, as far as this proposition is concerned, is whether this is going to come up in the fortifications bill, and whether or not you gentlemen are not taking in too large an experimental or development territory. That is to say, instead of taking one object and making up a design, and then manufacturing it, and then testing it, and running it on through, you are working on so many things which are interrelated with one another, and you get a very large experimental estimate. In fact, the estimates for purposes of this kind bear a pretty large proportion to what the entire bills used to carry.

Gen. PEIRCE. We think that should be so, Mr. Slemp. This is not the time for production merely, because we have been left with large stores on hand, but we desire to crystallize the experience of the war in the development of new types, which will be available, after being tested out and approved, for subsequent manufacture. That is the course that is being pursued by all countries, and unless we keep abreast of the times in that direction, the result would be that when the future war comes our troops would go into battle with inferior weapons.

Mr. SLEMP. The point is that you do not complete any one study. You can show, can you, any specific result of that work for this fiscal year, can you?

Gen. PEIRCE. Yes, sir; we will show you under the fortifications bill.

Mr. SLEMP. What about this bill here? Can you show a single bomb which you have made in the past year, or developed in the past year?

Gen. PEIRCE. I can not answer in regard to bombs; I can in regard to some other items.

Maj. BORDEN. In regard to ballistic work I can tell you exactly what we have done during the past year. We are conducting wind-tunnel experiments at the Bureau of Standards on various forms of bombs, with the idea of ascertaining the method of controlling the trail angle of a bomb, that is, the trajectory; and, in addition, we are dropping bombs at the Aberdeen Proving Ground, and photographing them during their flight in order that we may compute their trajectory of every bomb we have.

Mr. SLEMP. You made an estimate last year, did you not, for experimental work?

Maj. BORDEN. Yes, sir.

Mr. SLEMP. What did you follow through with your money last year? Did you design any bombs?

Maj. BORDEN. Yes, sir.

Mr. SLEMP. Did you produce any?

Maj. BORDEN. We are producing some right now.

Mr. SLEMP. What are your conclusions in regard to your design and production?

Maj. BORDEN. The particular bombs we have under manufacture we have not completed as yet. They are being completed now.

Mr. SLEMP. You have an estimate here for the production of these bombs that you have not even tested out yet?

Maj. BORDEN. No, sir; none here.

Mr. ANTHONY. Another thing, Major. You are asking for authority to spend money for the development of every type of bomb that is used, from the little ones up to the 1,000-pound bomb. Would it not be better for you to develop one or two types first, and then develop the future sizes ranging up to 2,000 pounds?

Mr. SLEMP. And get away from the refinements of the proposition.

Mr. ANTHONY. My question is why can you not develop one or two types, and when you get them perfected, follow along with your other sizes?

Maj. BORDEN. The reason is that the types of bombs are not at all connected. Some bombs are analogous to a 14-inch gun, whereas others are analogous to a 3-inch gun. Take our fragmentation bomb which only weigh 25 pounds. They have no relation whatever to the demolition bombs, and, as a matter of fact, the demolition bombs have no relation to the incendiary bombs.

Mr. ANTHONY. What Mr. Slemp was trying to get at, I take it, was this—that you had an appropriation for this purpose last year. What did you develop out of it—any satisfactory type of bomb that you are satisfied with and are ready to put into production?

Maj. BORDEN. We have now under production an experimental quantity of bombs that we expect will be satisfactory. We can ascertain this by testing them, but we believe they will be satisfactory.

Mr. SLEMP. Suppose you stop there and do not have any production until you finally conclude about that, and say: "Now we have got it."

satisfactory bomb, and we are going to have some production, whatever quantity we think is necessary to produce, and put that aside now as a complete proposition." Then we could understand that.

Maj. BORDEN. We are not asking for any money for the further development of these particular types, and will not until we have conducted these tests. For instance, last year we asked for an appropriation for the development of the 1,000-pound bomb. We have just completed a design of this bomb, and are going to produce a small number. The item reads, "For the development of 1,000-pound, 2,000-pound, and 3,000-pound bombs," but we will not use the money for the 1,000-pound bomb, but for the next in the series, the 2,000-pound bomb.

Mr. SLEMP. Let us take that as an illustration. You spend \$40,000 on the development of a 1,000-pound, 2,000-pound, and 3,000-pound bomb, which is an itemized expenditure.

Maj. BORDEN. It will cost \$5,000 to design the bomb.

Mr. SLEMP. Who would make the design?

Maj. BORDEN. We make it here in Washington, and also submit it to the various arsenals.

Mr. SLEMP. And perhaps you would have some of your employees working on the design?

Maj. BORDEN. Yes, sir.

Mr. SLEMP. How much would it cost?

Maj. BORDEN. It would cost \$5,000 to design it.

Mr. SLEMP. Now you have got your design.

Maj. BORDEN. Then we would have to produce a certain number to prove the design. One 1,000-pound bomb will cost approximately \$1,000. Assuming that the design will cost \$5,000 and \$40,000 is appropriated, we can produce 35 bombs to be used in proving the design. We know by experience that 35 bombs are hardly sufficient to prove the design. We should have approximately 50. With the funds that are now available from past appropriations we are expecting to be able to complete the design and construction of fifty 1,000-pound bombs which we will test, and if they are satisfactory we will not ask for any more money for the development of this type. The money we are now asking for in this appropriation is for the development of the next size, the 2,000-pound bomb.

Mr. ANTHONY. Practically all of this \$1,900,000 in the estimate applies to the development of airplane bombs, ammunition for small arms and for hand use—that is, grenades, and things of that kind?

Gen. PEIRCE. You are right.

Mr. ANTHONY. It also provides ammunition for the firing of the morning and evening gun at the different military posts and soldiers' homes. What does that cost the Government each year?

Maj. O'LEARY. Approximately \$50,000.

Mr. ANTHONY. A year?

Maj. O'LEARY. Yes, sir.

Mr. ANTHONY. Is it necessary to manufacture new ammunition for that purpose, or have you powder on hand that could be used?

Maj. O'LEARY. This contemplates the manufacture of new powder.

Mr. ANTHONY. Can you utilize the powder on hand that is carried over from the war stores for that purpose?

Gen. PEIRCE. This is saluting powder; the other is not saluting powder.

Mr. ANTHONY. You have made no saluting powder for use during the war?

Gen. PEIRCE. No.

SMALL-ARMS TARGET PRACTICE.

Mr. ANTHONY. What is the next item?

Gen. PEIRCE. Small-arms target practice, on page 7.

Mr. ANTHONY. You are asking for \$1,757,000. How much of that have you put in class A?

Gen. PEIRCE. \$747,560.

Mr. ANTHONY. That is absolutely necessary?

Gen. PEIRCE. Yes.

Mr. ANTHONY. That you consider as essential?

Gen. PEIRCE. Yes, sir; there is one point in connection with the manufacture of caliber .30 ammunition that should be explained, and that is that some must be manufactured in order to keep a skeleton force going at Frankford Arsenal, and not be obliged to shut down the small-arms plant there and discharge the employees. With the exception of the special ammunition required by the Air Service, A. P. ammunition, tracer, and incendiary ammunition, there would be otherwise no necessity for manufacturing straight caliber .30 ammunition.

Mr. ANTHONY. You have a very large surplus of that ammunition left on hand since the war?

Gen. PEIRCE. Yes, sir.

Mr. ANTHONY. How much of that ammunition have you?

Maj. O'LEARY. At the present time we have 1,350,000,000 rounds.

Mr. ANTHONY. What did we use to carry in reserve before the war?

Maj. O'LEARY. When we entered the war we had 60,000,000 rounds.

Mr. ANTHONY. How many rounds of small-arms ammunition do we actually use during the war, have you any idea?

Maj. O'LEARY. Approximately 1,500,000,000 rounds of caliber ammunition of all types were expended by the United States in World War.

Mr. ANTHONY. They used to give us, as a basis for calculation, a number of rounds of small-arms ammunition that were necessary per man or per thousand men. What basis do you figure that on?

Gen. PEIRCE. That basis, of course, has been entirely changed since the war, because the prewar basis took no account of the very large development of the use of the machine gun that occurred during the war. Have you that figure, Maj. Harris?

Maj. HARRIS. We use 2½ rounds per rifle per day and 250 rounds per machine gun per day.

Mr. ANTHONY. You say you ordinarily use that much?

Maj. HARRIS. Those are the figures we use in computing reserves.

Mr. ANTHONY. Calculated on a year? I do not see how you get that.

Maj. HARRIS. The time should be about a year. We calculate the time it would take to get production in quantity to meet the requirements.

ments. In the case of small-arms ammunition, it comes out approximately for one year.

Mr. ANTHONY. So the principal idea of making an appropriation for the manufacture of small-arms ammunition at this time is to keep your Frankford Arsenal in operation as a going concern, rather than lose your trained workers?

Gen. PEIRCE. Yes; as far as caliber .30 is concerned.

Mr. ANTHONY. That was cut down pretty largely last year, was it not? On your caliber .30 operations you spent all of the \$500,000 that was appropriated for that purpose?

Gen. PEIRCE. Col. O'Leary can give you the figures.

Mr. ANTHONY. Did you spend all of the \$500,000 that was appropriated for this purpose this year?

Maj. O'LEARY. Of the amount that was appropriated last year we estimate that there will be \$100,000 remaining unexpended on June 30, which will hold over, being a 2-year appropriation, and our present year's estimate was based on that assumption.

Col. SMITH. The amount available on January 6, 1921, for new obligations was \$120,140.

Mr. ANTHONY. Under this head do you manufacture other ammunition than caliber .30?

Maj. O'LEARY. Yes, sir; other types can be manufactured.

Mr. ANTHONY. How about caliber .50?

Maj. O'LEARY. Caliber .45 pistol ammunition can be manufactured from it, but we have a large stock on hand.

Mr. ANTHONY. How about the ammunition for the new airplane guns? What are they, caliber .50?

Maj. O'LEARY. The caliber .50 machine gun is now under development.

Mr. ANTHONY. You have entered into the manufacture of ammunition for it very largely?

Maj. O'LEARY. Not except the manufacture of ammunition that will be required in the testing of the weapons.

Mr. ANTHONY. And that can be manufactured under this appropriation?

Maj. O'LEARY. It could; yes, sir; but our estimates for that are included in the appropriation we just considered, ordnance stores ammunition. We have \$75,000 in that appropriation.

Mr. ANTHONY. As a matter of fact, is all of this in class A?

Gen. PEIRCE. \$747,560 only are in class A.

Mr. ANTHONY. I do not think we need to go into that any further.

MANUFACTURE OF ARMS.

Gen. PEIRCE. The next item is the manufacture of arms.

Mr. ANTHONY. You are asking for \$1,373,000 for manufacturing, repairing, procuring, and issuing arms at the national armories.

Gen. PEIRCE. Of which \$665,000 is classed as A, and the last year's appropriation was \$700,000.

Mr. ANTHONY. Will you spend all of the present year's appropriation?

Maj. O'LEARY. No, sir. We now anticipate that of the present year's appropriation on June 30 there will remain \$250,000.

Mr. ANTHONY. That will be carried over also?

Maj. O'LEARY. Yes, sir; that will be carried over, and the present estimates are based on that assumption.

Gen. PEIRCE. I might say in regard to the manufacture of small arms that the same thing applies to this item at the Springfield Armory that applies to the Frankford Arsenal.

Mr. ANTHONY. This appropriation covers the manufacture of Springfield rifle, the service rifle, the 1903 model, is it?

Gen. PEIRCE. 1903; yes, sir.

Mr. ANTHONY. Does it cover the manufacture of revolvers also?

Gen. PEIRCE. Pistols, yes.

Mr. ANTHONY. Any other arms?

Gen. PEIRCE. Bayonets and bolos, etc.

Mr. ANTHONY. How many of the Springfield service rifles do you contemplate turning out under this appropriation?

Gen. PEIRCE. We provide for the rate of production of 75 arms per day at Springfield, which is the lowest that can be manufactured with any degree of economy at all.

Mr. ANTHONY. Is it your idea in this item, as in the former one, to keep the plant as a going concern, and give it just enough work to do to hold the force together?

Gen. PEIRCE. Yes, sir.

Mr. ANTHONY. How many of the 1903 model Springfields have you on hand?

Maj. O'LEARY. Six hundred and sixteen thousand, sir.

Mr. ANTHONY. How many of the service rifles? What do you call the war rifle?

Gen. PEIRCE. 1917.

Mr. ANTHONY. How many of the 1917 model service rifles have you on hand?

Maj. O'LEARY. Two million.

Mr. ANTHONY. That is in addition to the number now in the hands of troops?

Maj. O'LEARY. No, sir; that is the total.

Gen. PEIRCE. There are none in the hands of troops at the present time.

Mr. ANTHONY. What is the regular arm?

Gen. PEIRCE. The 1903 Springfield.

Mr. ANTHONY. What is the National Guard equipment?

Gen. PEIRCE. The same.

Mr. ANTHONY. That 2,000,000 includes all?

Maj. O'LEARY. That is all the serviceable model 1917 rifles.

Mr. ANTHONY. So that in actual reserve you have how many?

Maj. O'LEARY. Well, taking the rifles in the hands of troops and being available for reserves, we have a total of 2,616,000 rifles.

Mr. ANTHONY. Two million of the 1917 type?

Maj. O'LEARY. Yes, sir.

Mr. ANTHONY. And 616,000 of the Springfield?

Maj. O'LEARY. Yes, sir.

Mr. ANTHONY. You regard the service rifle of 1917 as adequate in every way for a reserve arm?

Gen. PEIRCE. For a reserve arm, yes.

Mr. ANTHONY. But for the purpose of actual use and issue to troops you will continue to use the Springfield?

Gen. PEIRCE. We think the 1903 model is better in some details than the 1917.

Mr. ANTHONY. What does it cost you now to turn out a Springfield service rifle?

Maj. O'LEARY. \$33, sir.

Mr. ANTHONY. What was the prewar cost of manufacturing the Springfield service rifle?

Gen. PEIRCE. Just before the war began in 1914 it was around \$14.50. It began to go up as costs began to climb up after 1914.

Mr. ANTHONY. Those costs will probably be reduced. In connection with the appropriation for small-arms ammunition I wish you would prepare a similar statement, General, in reference to the cost of the caliber .30 ammunition before the war, what it costs now per thousand, and whether you are producing that ammunition at the Frankford Arsenal now at as reasonable a price as it can be purchased for in the open market.

Gen. PEIRCE. Yes, sir.

(The statement referred to follows:)

PRODUCTION COST OF CALIBER .30 BALL AMMUNITION, MODEL OF 1906, AT FRANKFORD ARSENAL PRIOR TO THE WORLD WAR.

1913, 52,992,180 rounds at \$27.08 per 1,000.

1914, 51,263,100 rounds at \$22.82 per 1,000.

1915, 45,277,200 rounds at \$22.16 per 1,000.

The cost of similar ammunition at Frankford Arsenal at the present time is \$45 per 1,000. It is estimated that this latter cost is less than the amount which the Ordnance Department would have to pay for this ammunition if procured in the open market. It is thought that the best price which would be received would be from \$50 to \$55 per 1,000. This latter point, however, could only be determined with any degree of accuracy by actually going into the market and buying the commodity desired.

Mr. ANTHONY. That is for a comparative statement of the production costs there with the cost of such ammunition purchased in the market. That used to be a bone of contention in other days. It may not be this year.

How many service rifles did you say you intended to manufacture with the \$655,000?

Maj. O'LEARY. That estimate will provide for the manufacture of 19,697 rifles at an estimated cost of \$33 each. Considering the funds that will hold over, we estimate that there will be \$650,000 available during the fiscal year 1922 for the straight production of rifles.

Mr. ANTHONY. How many pistols do you propose to produce?

Maj. O'LEARY. We have an A item of \$100,000 which will produce practically 40,000 pistols. They will cost about \$25 each.

Gen. PEIRCE. That is a B item in my copy, the manufacture of pistols.

Maj. O'LEARY. It will be between \$20 and \$25.

Gen. PEIRCE. The item for the manufacture of pistols is a B item.

Mr. ANTHONY. So this \$655,000 will be almost entirely used for the manufacture of the service rifle?

Gen. PEIRCE. That number of rifles is less than the number we figure is used up each year.

Mr. ANTHONY. How many pistols have you on hand now, Major?

Maj. O'LEARY. We have 264,310.

Mr. ANTHONY. That includes the number in use by the troops of all classes?

Maj. O'LEARY. Yes, sir. I should state that that item for the manufacture of pistols is a B item, and not an A item.

Mr. ANTHONY. What class of troops are issued pistols?

Maj. O'LEARY. All of the mobile army are equipped with pistols.

Mr. ANTHONY. Not all of your troops?

Maj. O'LEARY. Infantry and Cavalry.

Mr. ANTHONY. Does each infantryman carry a pistol?

Maj. O'LEARY. No, sir.

Mr. ANTHONY. That is what I mean.

Maj. O'LEARY. The noncommissioned officers and the officers only, as a rule, carry pistols in peace times.

Mr. ANTHONY. No privates ever carry pistols?

Maj. O'LEARY. I think in each company there are two privates that have pistols; I am not sure.

Mr. ANTHONY. You say all the enlisted men in the Coast Artillery?

Gen. PEIRCE. In the Field Artillery and Cavalry, and certain non-commissioned officers in the Coast Artillery.

Mr. SLEMP. General, have you any money for the Springfield Arsenal there in the other appropriation bills?

Gen. PEIRCE. Not except in one or two small items in the sundry civil bill, for the construction of fire escapes, or something of that sort.

Mr. SLEMP. You do get some money for the Frankford Arsenal in the fortifications bill?

Gen. PEIRCE. For fire control.

Mr. SLEMP. This brings the Springfield Arsenal to about its running capacity in 1916?

Gen. PEIRCE. To its running capacity in 1915. We began to build up in 1916.

Mr. SLEMP. I am speaking now with reference to the personnel, rather than to costs.

Gen. PEIRCE. Yes. It will average about 525 men.

Mr. SLEMP. You will have about 500 men there next year?

Gen. PEIRCE. In that neighborhood.

ORDNANCE STORES AND SUPPLIES.

Mr. ANTHONY. You are asking for \$346,000 for ordnance stores and supplies. How much of this is class A?

Gen. PEIRCE. \$236,000, and the present year's appropriation was \$590,000.

Mr. ANTHONY. Have you expended all of that appropriation?

Maj. BORDEN. We will not.

Mr. ANTHONY. How much will be carried over?

Maj. BORDEN. \$234,508, which is considered in making up the estimate.

Mr. SLEMP. In a hard push you might let us off a little easy on this item?

Gen. PEIRCE. A great deal of it is for development work in connection with the air supplies.

Mr. ANTHONY. Outside of the development work of airplane bombs, how much of it is used for overhauling, cleaning, repairing, and preserving ordnance and ordnance stores? Just state how much is used for airplane bomb development, and how much for the preservation and repair of ordnance stores.

Maj. BORDEN. For experimental and developmental work in the continuation of old work there is only one item, which does not apply to bomb sights and bomb racks; that is for the development of grenade and pyrotechnic throwers, an A item of \$10,000, a B item of \$20,000.

Mr. ANTHONY. All the rest of it goes into the repair and care of ordnance stores?

Maj. BORDEN. No, sir; that is for the continuation of old, experimental, and development work. On new experimental work \$35,000 will be spent on development and testing bomb racks.

Gen. PEIRCE. The only amount that goes into use in connection with old stores is item No. 13, \$25,000 for breaking down and salvaging or destroying ammunition and ammunition components which are obsolete or have so deteriorated that they have become dangerous to store or to use.

Mr. ANTHONY. The rest goes for the purchase and the manufacture of ordnance stores to fill the requisitions of troops?

Gen. PEIRCE. The rest of it goes into this experimental and development work.

Maj. BORDEN. There are two items for repair and maintenance; items 10 and 11.

Mr. ANTHONY. What page is that on?

Gen. PEIRCE. It starts on page 10 and concludes on page 11, and is all development work, with the exception of one item, item No. 10, for maintenance, and this miscellaneous item below that I just spoke of, \$25,000. In other words, there is nothing there for the manufacture of stores for issue.

Mr. ANTHONY. You are asking in item 9 for \$40,000 for the manufacture of 32 gyro-bomb sights. What is a gyro-bomb sight?

Maj. BORDEN. It is a sight that is stabilized by a gyro-stabilizer.

Gen. PEIRCE. For use on aircraft.

Mr. ANTHONY. Is the sight one of the appliances used on the airplane?

Maj. BORDEN. Yes, sir. A bomb sight is essential, in order that the aircraft may be directed over the target and the instant of release ascertained.

Mr. ANTHONY. How much of the appropriation is to be used for the purchase and manufacture of ordnance stores proper?

Gen. PEIRCE. None, sir.

Mr. ANTHONY. That is just language that remains in the bill?

Gen. PEIRCE. Yes.

Mr. ANTHONY. You have a sufficient supply of those stores on hand, I take it.

Gen. PEIRCE. Yes, sir.

Mr. ANTHONY. What is the next item?

Gen. PEIRCE. Automatic machine rifles, right near the bottom of page 11.

Col. SMITH. Page 104 of the committee print.

AUTOMATIC RIFLES.

Mr. ANTHONY. You are asking for \$1,000,000 for the purchase, manufacture, test, repair, etc., of automatic machine rifles. How much of that have you put in class A?

Gen. PEIRCE. \$881,000. The greater part of this is for development work, including the production of a certain number of designs that have materialized for service test, and here again the majority of the items relate to aircraft work, and in these items I include the .50 caliber machine gun.

Mr. ANTHONY. How much of the appropriation do you intend to use for the manufacture or placing in production of types of automatic machine guns?

Gen. PEIRCE. This is only for the purpose of service tests, not for quantity production.

Mr. ANTHONY. You do not intend to use any of them in quantity?

Gen. PEIRCE. Except in quantities required for the service test, which runs in one case to 30, and in other cases to 75. In one case it involves the conversion of 100, so that small units may be equipped.

Mr. ANTHONY. In this connection will you set forth in the hearing a statement which shows the number of types of automatic machine guns which the Army now has on hand?

Maj. BORDEN. I can read it off. There are now available the following machine guns:

Browning machine guns, model 1917, 61,222; Browning automatic rifles, 80,245; Browning aircraft machine guns, 2,965; Marlin aircraft machine guns, 31,433; Lewis aircraft machine guns, 36,552; Vickers aircraft machine guns, 5,743; Vickers 11-millimeter machine guns, 2,433; Vickers ground type machine guns, 8,291; Brownings tank machine guns, 1,806; Marlin tank machine guns, 2,646.

Mr. ANTHONY. What does that total?

Maj. BORDEN. Two hundred and thirty-three thousand three hundred and thirty-six.

Mr. ANTHONY. Does this cover all of the machine guns that have been carried over from the war, or have you declared some of the types which were manufactured during the war as obsolete?

Maj. BORDEN. This covers all the machine guns that have been carried over.

Mr. ANTHONY. They are all serviceable?

Maj. BORDEN. Some of them are not serviceable, and will have to be altered. That applies to the Vickers aircraft machine gun, both the .30 caliber and the 11-millimeter.

Mr. SLEMP. How many machine guns correspond to an army of a million men?

Mr. ANTHONY. That is an elastic question, is it not?

Mr. SLEMP. I do not suppose you equip them all with machine guns. Suppose there was a war that brought out a million men; how many machine guns would be required?

Maj. BORDEN. I have not that figure.

Mr. SLEMP. What is the general experience on that, Gen. Peirce? How many machine guns per thousand men? Have you the actual figures?

Gen. PEIRCE. We are not certain that it is absolutely fixed now.

Mr. SLEMP. It has almost gotten to the point of replacing the rifle, has it not?

Gen. PEIRCE. In the trench warfare, pretty nearly that.

Mr. ANTHONY. The figures show that during the war a very great percentage of men that went into the fight, for instance, as individuals, armed with the service rifle, came back armed with the machine gun.

Maj. O'LEARY. The present organization contemplates one machine-gun company in every Infantry and Cavalry regiment, which will mean one-quarter of the combatant troops of those two arms of the service armed with the machine gun.

Mr. ANTHONY. So really with an army of a million men you ought to have 250,000 machine guns?

Maj. O'LEARY. We only have one machine gun for every five or six men.

Mr. ANTHONY. You have on hand, then, I would say, enough guns for an army of a million men?

Maj. O'LEARY. A little more than that.

Gen. PEIRCE. There is one thing that might be said about that, that the list includes a large number of types of guns. The ground guns are not available for aircraft, and the aircraft guns are not available for the ground, and there are quite a number of types of aircraft guns.

Mr. ANTHONY. You had 60,000 Browning guns?

Maj. BORDEN. Sixty-one thousand two hundred and twenty-two Browning machine guns of the ground type.

Col. RUGGLES. Some of the machine guns are pretty nearly obsolete. There are 35,000 Marlin guns which are hardly to be considered satisfactory guns. I think they are dangerous guns. They were stop-gap guns during the war. I do not think they ought to be considered as available machine guns.

Mr. ANTHONY. How about the Lewis guns? Are they considered available?

Col. RUGGLES. They are pretty good for a limited purpose. They are used as flexible guns on airplanes.

Mr. ANTHONY. Are the Browning guns acceptable?

Col. RUGGLES. The Brownings are the best.

Mr. SLEMP. Do you not think that \$800,000 is a rather disproportionately large amount for experimental work on the machine gun?

Gen. PEIRCE. Well, a large item in that total is \$300,000 for item No. 24, for maintenance of machine guns in the hands of troops and for preserving, overhauling, and repairing of machine guns in store. That is to take care of those very guns we are speaking about and make sure they remain in serviceable condition. When they are shipped, they come in in all kinds of condition, and they have to be overhauled.

Mr. SLEMP. Did you make that estimate on the value of the gun, or the amount of work to put the gun into condition?

Gen. PEIRCE. According to the usual previous experience of what it will cost per gun.

Mr. ANTHONY. How much of this appropriation will be used for experimental and development work, and how much for maintenance?

Maj. BORDEN. \$247,500 covers the A items under experimental and development work, and there is a \$15,000 B item.

Mr. ANTHONY. We are only interested in the A items. Which are the A items?

Maj. BORDEN. Under "production for service tests," \$333,500.

Mr. ANTHONY. Did you use all of that appropriation for 1921?

Maj. BORDEN. We will use it all, yes, sir.

Mr. ANTHONY. You will not carry over anything?

Maj. BORDEN. No, sir.

Mr. ANTHONY. I notice in the language of the bill you want to make the appropriation remain available until 1923.

Maj. BORDEN. Yes, sir, that was done last year.

Gen. PEIRCE. A two-year appropriation.

Maj. RICE. Before you turn that page, Mr. Chairman, the omission of the word "machine" in the title is a misprint. It was not submitted with the intention to omit that word "machine."

Mr. ANTHONY. The words "automatic rifle" do not cover all kinds of machine guns?

Maj. RICE. It has been for the last two or three years known as the automatic machine rifle, and was so submitted this year, but in some way it was put in in that way.

Col. SMITH. The Treasury title of the appropriation leaves the word "automatic" out.

Maj. RICE. It does not make any difference to us, but I just want to call attention to the fact that we did not change the wording.

Col. SMITH. It has stood in the bill as automatic machine rifle since August 24, 1912.

Mr. CRAMTON. And the text uses that phraseology.

Mr. ANTHONY. And the heading should conform to the text; is that your idea?

Maj. BORDEN. It should be automatic machine rifles.

TANKS.

Gen. PEIRCE. The next item is for tanks.

Mr. ANTHONY. You are asking for \$1,208,000 for tanks.

Gen. PEIRCE. \$1,208,000, of which the A items are \$875,000.

Mr. ANTHONY. Did you use all of the appropriation of \$500,000 during the current year?

Maj. MOODY. That has all been allotted, or allocated for allotment, with the exception of 15 per cent, or \$75,000, which is being held as an emergency reserve. It will probably all be allotted before June 30, but that is being held out without any provision at the present time.

Mr. ANTHONY. How many tanks do you propose to build under this item?

Maj. MOODY. We propose to build under the A division 6 tanks for a service test, although under the B division it was proposed to build 15. The idea of that is—and that is an item which we expected to have the Chief of the Tank Corps here to explain—

Mr. ANTHONY. The Chief of the Tank Corps did appear before the committee and illustrated to us several new types of tanks which have recently been developed and which he said he wanted to manufacture.

Maj. MOODY. I think I may reflect his views fairly well. During the war we used a large, heavy tank, and a very small tank, and as a result of that it is figured that one tank will do the work, but such a tank is not in existence; that is, it has not been available to the Tank Corps, and they feel that they would like to equip one very small unit in order to see that the thing is right from a tactical standpoint as well as from a design standpoint, which is the responsibility of the Ordnance Department.

Gen. PEIRCE. That is detailed on page 14.

Mr. SLEMP. Is six the minimum number that you can make a test with? Why can you not make a test with just one?

Maj. MOODY. In the opinion of the Chief of Infantry and the Chief of the Tank Service it is very desirable to equip a small unit. Of course, if they do not get the money they will have to use——

Gen. PEIRCE. They want to see how these tanks will operate in a unit, in conjunction with each other. They try out certain tactical problems to see whether these tanks will operate satisfactorily.

Mr. ANTHONY. You propose to manufacture six tanks for tests?

Maj. MOODY. Yes, sir.

Mr. SLEMP. How will the cost of six tanks compare with the cost of one? It would not be six times as much, by any means?

Gen. PEIRCE. No, sir; for the reason that 15 tanks would not be two and a half times the cost of six.

Mr. ANTHONY. You speak of the manufacture of improved types of amphibious high-speed tanks. Are all of the tanks you are going to manufacture under this appropriation to be of that type?

Maj. MOODY. There are two goals which we are aiming at. One of them, which I think I might say we have approximately reached, is to produce a type of tank of the present desired size and gun power which, in the event of an emergency, we would have tried out, have made drawings of, and have a small number of the tools made, and be justified in putting in production. In other words, we have about reached the stopping point on that, and the Tank Service and the Chief of the Infantry would like to make a field test, but, to be frank, we feel that the ultimate tank which will come out three or four years from now will probably supersede the type on which we have reached a stopping point now, and it is for the development of that ultimate type for which the experimental money asked for this year would be expended.

Mr. ANTHONY. You say you want to manufacture 15 tanks from among the number that are now under experimental construction?

Maj. MOODY. Yes, sir.

Mr. ANTHONY. I suppose that includes these types we have just been talking about?

Maj. MOODY. Yes, sir.

Mr. ANTHONY. How much do you estimate it will cost per tank to make those?

Maj. MOODY. In round figures, about \$40,000. A considerable portion of that cost is in the armor plate. About half the weight of a tank is armor, and the cost of that armor in such quantities is somewhere around 75 cents to a dollar a pound, which makes the individual cost seem rather high.

Mr. SLEMP. I did not understand that you had actually completed your experimental type, so that you are providing for a service test before you have decided that you have the type that meets the requirements.

Maj. MOODY. The first model is about done. There are different models under construction, the first of which is running, and I expect as soon as these hearings are over to give that a final inspection. The other two, which follow sufficiently conventional lines so that we are in very little doubt as to their work, are expected for delivery in April.

Mr. SLEMP. Suppose they turn out not satisfactory to you?

Gen. PEIRCE. We will not build them then.

Maj. MOODY. If there is any question of their being unsatisfactory, we will not build them.

Gen. PEIRCE. We want to be in a position so that if any of these types are satisfactory we can go ahead and build six for service tests, but if they are not satisfactory we will not build them.

Mr. SLEMP. Of course, it would be a lot better if you were just a little further ahead on the experimental work.

Gen. PEIRCE. Yes, sir.

Mr. ANTHONY. Gen. Peirce, in going over your figures you stated that out of the total estimate of \$1,200,000, \$875,000 was in class A, that is essential, yet in going over with you the analysis on page 14 you set aside three sums as being in class A, that is essential, one of \$75,000, one of \$225,000, and one of \$260,000, making a total of \$560,000.

Gen. PEIRCE. There is another item on the next page, sir.

Mr. ANTHONY. You are also asking, as a class A item, for \$300,000 additional, for the care, repair, and alteration of 1,000 six-ton tanks and 100 Mark VIII tanks. I take it that those 100 tanks must be the tanks that have come to you as the result of the war?

Gen. PEIRCE. Yes, sir.

Mr. ANTHONY. And you propose to alter them and try to bring them up to date?

Gen. PEIRCE. Put them in serviceable condition.

Maj. MOODY. I might say that the money estimated for will provide for no alterations except some small thing that might be an emergency repair and have to be made, because the amount estimated for maintenance of tanks per tank is less than the average business man spends for maintaining a heavy truck in service.

Mr. ANTHONY. Do the 1,100 tanks mentioned here include all the tanks you have on hand?

Maj. MOODY. In addition to that 1,100 there are about 227 French tanks and about 32 English tanks which are obsolescent and worn out, and it is not proposed to do anything more with them except to use them as long as they will run and then drop them.

Mr. ANTHONY. But you regard these 1,100 tanks, the 6-ton and the Mark VIII, as being efficient tanks for actual use if occasion should require?

Maj. MOODY. Yes; they have been placed in good condition and been equipped with the Browning machine gun.

Mr. ANTHONY. They are being properly taken care of?

Maj. MOODY. They are being properly taken care of, and a large number are in the hands of troops.

WEDNESDAY, JANUARY 12, 1921.

CHEMICAL WARFARE SERVICE.

STATEMENTS OF BRIG. GEN. AMOS A. FRIES, CHIEF, MAJ. C. C. COOMBS, FINANCE OFFICER, AND MAJ. E. J. ATKISSON, COMMANDING OFFICER, EDGEWOOD ARSENAL.

CURRENT ALLOTMENT AND EXPENDITURE.

Mr. ANTHONY. General, you are asking for the Chemical Warfare Service for the next fiscal year \$4,457,376.20. There was appropriated for the Chemical Warfare Service for the current fiscal year \$2,000,000. Will you tell us how much of the current year's appropriation has been allotted and how much has been expended so far?

Maj. COOMBS. There has been a total allotment from that appropriation of \$1,867,974.30. There is a free balance of \$32,025.70.

Mr. ANTHONY. Of the total appropriation?

Maj. COOMBS. That has not been allotted; yes, sir.

Mr. ANTHONY. Will you spend all of that amount this year?

Gen. FRIES. We expect to. That is being applied almost entirely to mask production, as it was on a showing of the need of masks that this particular appropriation was made; the funds under no-year appropriation amounting to nearly \$2,000,000, being for practically all other purposes.

Mr. ANTHONY. Have you any money available for the Chemical Warfare Service out of funds heretofore appropriated?

Gen. FRIES. Yes, sir; we had \$1,962,000 that was from a previous appropriation which was considered a no-year appropriation and available until expended. That has been used for research, development, and maintenance of plants and grounds, poisonous-gas development, and small scale manufacture wherever that has been carried on. In addition there were contracts let before June 30 out of other funds that went back into the Treasury when not obligated on June 30.

Mr. ANTHONY. Do you still have available this \$1,900,000 for carrying on that type of work?

Maj. COOMBS. We have an available balance of \$379,360.41. All except that amount has been allotted.

Mr. ANTHONY. For the current year, in addition to the sum you mentioned before?

Maj. COOMBS. Yes, sir.

Gen. FRIES. I would say in that connection that we have been very careful to hold some free balance for our unforeseen contingencies that are always arising.

Mr. ANTHONY. Have you an itemized statement showing how you propose to expend this \$4,457,376.20 that you are asking for?

Gen. FRIES. Yes; we have it here under nine separate items, as we originally submitted it to the War Department. We submitted this estimate in the first place along the line of the Ordnance Department's estimate and the estimate of the Engineer Corps, where those parts pertaining to fortifications would come in the fortifications bill, while others were carried under the sundry civil bill. But that was sent

back and we were directed to submit all the estimates in one bill, so that the entire Chemical Warfare Service appropriation asked for is covered in this bill except \$89,360 asked for in the legislative, executive, and judicial appropriation bill for the Washington office.

Mr. ANTHONY. Will you insert at this point in the record the items that make up the appropriations?

Gen. FRIES. Yes, sir.

Summary of estimates, Chemical Warfare Service, Army appropriation bill, fiscal year 1921-22.

1. Chemical Warfare field service.....	\$507,038.80
2. Chemical Warfare ammunition.....	210,000.00
3. Chemical Warfare stores and supplies.....	800,000.00
4. Chemical Warfare investigations.....	1,754,042.00
5. Chemical Warfare plants and properties.....	615,164.00
6. Chemical Warfare training.....	150,000.00
7. Chemical Warfare proving grounds	133,641.40
8. Repairs of arsenals, Chemical Warfare Service.....	287,490.00
9. Chemical Warfare Service schools	35,000.00

Total.....	4,492,376.20
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Edgewood Arsenal.....	3,699,776.00
Lakehurst Proving Ground.....	487,600.20
Field training.....	150,000.00
Field depots.....	100,000.00
Office, Chief Chemical Warfare Service.....	55,000.00

Total.....	4,492,376.20
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Chemical Warfare Service estimates in Army appropriation bill, fiscal year 1921-22.
field service.

Office of the Chief of Chemical Warfare Service:

Civilian, technical, and mechanical assistants.....	\$35,000.00
Expenses of civilian personnel attending trials and tests.....	5,000.00
Mileage, relating to Chemical Warfare Service activities.....	10,000.00
Miscellaneous and incidental expenses.....	5,000.00
	<u>55,000.00</u>

Edgewood Arsenal:

Current administrative expenses.....	42,700.00
Supply personnel.....	120,350.00
Supplies.....	60,000.00
Contingencies.....	30,000.00
	<u>253,050.00</u>

Lakehurst Proving Ground:

Current administrative expenses.....	8,900.00
Supply personnel.....	46,500.00
Supplies.....	12,400.00
Contingencies.....	30,000.00
	<u>97,800.00</u>

Field supply depots: For all expenses in connection with the operation of
Chemical Warfare Service supply depots in the field.....

	100,000.00
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Total.....	507,038.80
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OBJECT OF ESTIMATES—PROPOSED WORK—DEVELOPMENT OF BURSTING CHARGE.

Mr. ANTHONY. Now, General, will you make a brief statement giving the committee an outline of what you propose to do with the amount you are asking for, and state the conditions in the Chemical Warfare Service at the present time, and what you hope to accomplish?

Gen. FRIES. The six months since the 1st of July has enabled us to get worked out pretty well the plans for future operations, based on an idea of what we must get solved before we would be in a position to be prepared, and what money will be necessary to expend in order to do that. For instance, we have as yet no bursting charges or boosters that are successful in opening up gas shells to get anything like efficiency. That has remained an unsolved problem practically from the early days, when we got into the war. The development of a bursting charge—a charge that will disperse——

Mr. ANTHONY (interposing). The gas?

Gen. FRIES. Yes, sir; That is a much deeper problem than was anticipated in the early days, that alone holding up the getting of gas to France even after the shells were available. The booster charge is contained in the container that goes in the shell. The word "booster" arises from the fact that in the high-explosive shell they had a little charge for the purpose of boosting or setting off the main explosion. The little charge that they had in the shell would not successfully burst gas shells and therefore they had to make a special booster. The first attempt was to crimp an extension on the high-explosive booster. The gases that are always liquid penetrated through the crimp and destroyed the powder that burst the shell. Then they tried another experiment and the same thing happened, and it was not until the Chemical Warfare Service was made a separate service and Gen. Sibert took hold himself that they began to make these one-piece boosters—bored out. They were proving somewhat successful, but they had to be made without a knowledge of the future action of the shell. The latest development is a full-length piece on the shell, stuck in the nose. What happened was that it blew the whole end off of the shell, leaving the gas in the rest of the shell, not properly bursting, and we got a very low efficiency. That is one of the important problems we have to solve.

UPKEEP OF EDGEWOOD ARSENAL.

Another thing is the upkeep of Edgewood Arsenal, where practically all of the poisonous gas was made during the war, and which is the only plant in this country as yet available in case of need in the future. That will continue to be the case until our dyestuffs and other chemical industries are developed to a point where they will produce that sort of stuff. We had other gas plants connected with chemical concerns, but they were built by Government funds and were under very close governmental supervision.

Mr. ANTHONY. Do you manufacture your chemicals at the Edgewood Arsenal or are you purchasing the greater part of the chemicals that you need?

Gen. FRIES. We purchase the greater part of all the primary chemicals, but the combinations are made at the Edgewood Arsenal.

Mr. ANTHONY. The compounds are purely military, I suppose, and can not be purchased outside?

Gen. FRIES. That is it. But we buy sulphur, for instance, and make sulphur monochloride, or we can purchase that outside. The sulphur monochloride is used in combination to make mustard gas, which commercial concerns do not like to make, so we make practically all of our mustard gas at Edgewood. There are practically no other plants making this material. It is necessary to keep those plants in shape to operate on short notice. So, with the situation as it exists to-day, it will be several years before there can be any dependence put on outside gas plants, and in the case of some of these we can not put any dependence whatever, because nobody wants mustard gas around because it is persistent and so extremely difficult to get rid of.

SURPLUS CHEMICALS.

Mr. ANTHONY. How large a supply of these gases and chemicals were there on hand after the war in the possession of the Chemical Warfare Service?

Gen. FRIES. We had 1,700 tons of the poisonous gases, including chlorine, which is an article of everyday commerce, and used in nearly every process of gas making. The chlorine, however, has had a ready sale, and it has been shipped to Panama and other military posts where it has been used for water purification. We have sold some of the chlorine, but did not sell very much because of the needs of the Government.

Mr. ANTHONY. Have you sold all of your surplus supply chemicals?

Gen. FRIES. We have sold practically everything except the poisonous gases. For instance, we have sold between 250 and 300 tons of phosgene to dye makers.

Mr. ANTHONY. You still have a surplus of these materials which you are going to dispose of?

Gen. FRIES. We are rather holding what we have now as a reserve. We consider we have practically no surplus on hand in any of these. The amount we have on hand of these materials which are sold is needed for issue to the Army and for proving and for a partial reserve. As a matter of fact, we have not sufficient of them for the ammunition that is supposed to be in reserve, and, therefore, we believe these should be kept. There are certain of them that can be kept indefinitely. We have phosphorus that is under water where it can be kept indefinitely. We are keeping all of the phosphorus because we can not get a big supply quickly. Phosgene we have sold down to as low as we think desirable, considering the amount of proving we have to do. Every time we work out a proposition like the full-length booster we have got to try it out in the field. The small laboratory test will not show what may happen in the field, and the field work requires several hundred shells each and a great deal of gas. There are some gases that we have not a sale for, although we have no surplus beyond what we will need as a reserve. We will have no sale for mustard gas and only a comparatively small sale for the chloropicrin.

Mr. ANTHONY. Have you on hand a sufficient amount of these gases to enable you to keep that work going, or will you use money out of this fund with which to buy a considerable amount of raw material?

Maj. ATKISSON. There will be a considerable amount of raw material purchased in connection with investigation work. We have a sufficient quantity of the standard gases for proving.

Gen. FRIES. There will be no large purchases of chemicals and gases for the manufacture of these things.

Mr. ANTHONY. Have you manufactured and put into reserve any considerable amount of material?

Gen. FRIES. We have in reserve now in materials probably a little over 2,000 tons, including 600 tons of white phosphorus. All of that was entirely manufactured prior to the armistice. The extra chemicals that we had on hand on a large scale were sold down to what we felt we should keep and must keep if we have any reserve at all.

Mr. ANTHONY. All the money for pay and subsistence for the men in your service is obtained from other appropriations, just as is the case with other branches of the Army?

Gen. FRIES. That is true in the case of the soldiers, but not for the civilian personnel. A great deal of our work, I would say the big part of our work is investigation and proving, because while all other branches of the Army except the Air Service are pretty well settled in the general features of their services, the Chemical Warfare Service was just beginning to be really effective when the armistice was signed.

PERSONNEL—MILITARY.

Mr. ANTHONY. How many officers and how many enlisted men have you in the Chemical Warfare Service at this time?

Gen. FRIES. We have 59 officers and approximately 900 men.

Mr. ANTHONY. Out of a total of how many authorized officers and men?

Gen. FRIES. One hundred officers and twelve hundred men.

CIVILIAN.

Mr. ANTHONY. How many civilian employees have you?

Gen. FRIES. About 1,475, including the Lakehurst Proving Grounds.

Mr. ANTHONY. Will you put in the record an analysis of the civilian force you employ, showing what the nature of their employment is and what salaries they receive.

Gen. FRIES. We can do that.

Mr. DENT. I wish you would include in that the class of work they are doing.

Gen. FRIES. We will do that.

(The statement referred to is as follows:)

Number of civilians employed under the Chemical Warfare Service at large for fiscal year 1920.

Employees.	Rate per annum.	Expended 1920.
<i>Salaries.</i>		<i>Number.</i>
Accountant.....	\$2,000.00	
Accountants:		
Cost.....	1,700.00	
Junior cost.....	2,160.00	
Do.....	2,000.00	
Second grade.....	1,800.00	
Senior grade.....	2,400.00	
Administrator, military.....	1,800.00	
Bookkeeper.....	1,500.00	
Do.....	1,400.00	
Chemists.....	6,000.00	
Do.....	4,500.00	
Do.....	3,600.00	
Do.....	2,100.00	
Do.....	2,000.00	
Do.....	1,800.00	
Chemists, junior.....	2,400.00	
Do.....	2,000.00	
Do.....	1,800.00	
Do.....	1,760.00	
Do.....	1,740.00	
Do.....	1,700.00	
Do.....	1,620.00	
Do.....	1,500.00	
Chemists, associate.....	3,000.00	
Do.....	2,800.00	
Do.....	2,700.00	
Do.....	2,600.00	
Do.....	2,500.00	
Do.....	2,475.00	
Do.....	2,400.00	
Do.....	2,300.00	
Do.....	2,200.00	
Do.....	2,220.00	
Do.....	2,100.00	
Do.....	2,100.00	
Checker.....	2,000.00	
Do.....	1,800.00	
Checkers, time.....	1,600.00	
Clerks.....	2,200.00	
Do.....	2,100.00	
Do.....	1,800.00	
Do.....	1,600.00	
Do.....	1,500.00	
Do.....	1,400.00	
Do.....	1,300.00	
Do.....	1,200.00	
Do.....	1,100.00	
Do.....	1,000.00	
Do.....	900.00	
Do.....	800.00	
Do.....	700.00	
Do.....	600.00	
Do.....	500.00	
Do.....	400.00	
Do.....	300.00	
Do.....	200.00	
Do.....	100.00	
Clerk, minor.....	1,000.00	
Consultant.....	2,000.00	
Draftsman.....	2,000.00	
Do.....	2,000.00	
Do.....	1,000.00	
Do.....	1,000.00	
Do.....	1,000.00	
Do.....	1,000.00	
Do.....	1,000.00	
Draftsman, copyist.....	1,000.00	
Dispatcher.....	1,000.00	
Engineer, chief operating.....	2,000.00	
Do.....	2,000.00	
Per day.....		

Number of civilians employed under the Chemical Warfare Service at large for fiscal year 1920—Continued.

Employees.	Rate per annum.	Expended, 1920.
<i>Salaries—Continued.</i>		
Engineer:		<i>Number.</i>
Calorimetric and ballistic.....	\$2,600.00	1
Chemical.....	3,000.00	1
Do.....	2,800.00	1
Do.....	2,600.00	3
Do.....	2,400.00	3
Do.....	960.00	1
Electrical operating.....	2,900.00	1
Do.....	2,600.00	1
Explosives and detonants.....	2,700.00	1
Mechanical.....	3,000.00	2
Do.....	2,700.00	1
Do.....	2,500.00	1
Mechanical and electrical.....	3,600.00	1
Do.....	2,800.00	1
Plant and refrigerating.....	3,600.00	1
Inspector.....	2,000.00	1
Do.....	1,200.00	1
Inspector:		
Material.....	1,740.00	1
Do.....	1,620.00	1
Sub.....	1,600.00	4
Do.....	1,500.00	1
Process gas mask.....	1,500.00	3
Instructors:		
Chief auto mechanics.....	2,500.00	1
Assistant chief auto mechanics.....	1,800.00	1
Chemistry.....	2,500.00	1
Commercial subjects.....	2,500.00	1
Laboratory assistant.....	1,752.80	1
Laboratorian, chemical.....	1,200.00	1
Laboratory helper.....	1,400.00	1
Do.....	1,375.00	1
Do.....	1,300.00	1
Do.....	1,260.00	1
Do.....	1,200.00	4
Messenger.....	1,200.00	1
Do.....	1,050.00	1
Do.....	900.00	1
Operator, chemical plant.....	2,500.00	2
Do.....	2,400.00	4
Do.....	2,350.00	1
Do.....	2,250.00	1
Do.....	2,220.00	1
Do.....	2,200.00	1
Do.....	2,160.00	1
Do.....	2,100.00	6
Do.....	2,000.00	2
Do.....	1,875.00	2
Do.....	1,857.00	1
Do.....	1,800.00	1
Do.....	1,680.00	2
Do.....	1,620.00	1
Do.....	1,500.00	1
Chief refrigerating.....	2,160.00	1
Patent, expert technical.....	2,600.00	1
Pharmacist, junior.....	1,800.00	1
Photographer.....	2,400.00	1
Do.....	1,800.00	1
Physiologists, junior.....	2,400.00	1
Do.....	2,000.00	1
Do.....	1,565.00	1
Secretary, civil service.....	2,000.00	1
Superintendent:		
Construction and maintenance.....	3,000.00	1
Gas mask face piece production.....	3,000.00	1
Gas mask production.....	3,500.00	1
Gas patrol.....	3,000.00	1
Yard stores.....	2,000.00	1
Teachers, grade.....	2,500.00	1
Teachers, assistant grade.....	1,800.00	1
Testers, chief gas mask canister.....	1,875.00	1
	560,452.60	292

Number of civilians employed under the Chemical Warfare Service at large for fiscal year 1920—Continued.

Employees.	Rate per annum.	Expended, 1920
<i>Wages.</i>		
Assemblers, gas mask.....	\$1,080.00	Number
Do.....	922.00	1.
Do.....	900.00	
Do.....	810.00	
Blacksmiths.....	2,000.00	
Do.....	16.46	
Blacksmith helpers.....	1,400.00	
Do.....	1,200.00	
Bricklayers.....	2,750.00	
Do.....	2,520.00	
Brickmasons.....	2,750.00	
Do.....	2,520.00	
Blowers, glass.....	2,475.00	
Do.....	2,400.00	
Burners, lead.....	2,500.00	
Burners, lead, helpers.....	1,400.00	
Do.....	1,200.00	
Carpenters.....	2,375.00	
Do.....	2,250.00	
Do.....	2,220.00	
Do.....	2,200.00	
Do.....	2,137.00	
Do.....	2,112.00	
Do.....	2,000.00	
Do.....	1,750.00	
Do.....	1,000.00	
Do.....	17.20	
Do.....	16.40	
Do.....	16.00	
Carpenters, helpers.....	1,640.00	
Do.....	1,575.00	
Do.....	1,500.00	
Do.....	14.30	
Do.....	14.00	
Chauffeurs.....	1,200.00	
Electricians.....	2,900.00	
Do.....	2,500.00	
Do.....	2,375.00	
Do.....	2,200.00	
Do.....	2,082.50	
Do.....	2,050.00	
Do.....	1,800.00	
Do.....	16.56	
Electricians, helpers.....	1,800.00	
Do.....	1,800.00	
Do.....	1,700.00	
Do.....	1,700.00	
Do.....	1,700.00	
Do.....	1,721.50	
Do.....	1,512.00	
Do.....	1,300.00	
Do.....	1,000.00	
Engineers, stationary.....	2,100.00	
Do.....	1,900.00	
Engineers, stationary, steam.....	2,475.00	
Do.....	2,200.00	
Do.....	2,100.00	
Do.....	2,000.00	
Do.....	2,000.00	
Do.....	2,000.00	
Do.....	1,000.00	
Do.....	1,000.00	
Fire chief.....	2,000.00	
Fire chief, assistant.....	1,700.00	
Firemen.....	1,000.00	
Firemen, stationary.....	1,000.00	
Do.....	1,000.00	
Do.....	1,000.00	
Do.....	1,000.00	
Do.....	1,000.00	
Foremen:		
Chemical plant.....	1,000.00	
Brick mason.....	1,000.00	
Carpenter.....	2,000.00	
Construction.....	2,000.00	
Construction, assistant.....	2,000.00	
Electrician.....	2,000.00	
Garage.....	1,000.00	

1 Per day.

Number of civilians employed under the Chemical Warfare Service at large for fiscal year 1920—Continued..

Employees.	Rate per annum.	Expended, 1920.
<i>Wages—Continued.</i>		<i>Number.</i>
Foremen—Continued.		
Gas patrol.....	\$1,740.00	1
Do.....	1,680.00	3
Do.....	1,620.00	1
Labor.....	2,160.00	1
Do.....	2,035.00	1
Do.....	2,000.00	2
Do.....	1,900.00	1
Do.....	1,760.00	1
Do.....	1,740.00	1
Do.....	1,680.00	2
Do.....	1,620.00	9
Do.....	1,565.00	1
Do.....	1,512.00	1
Do.....	1,500.00	2
Do.....	1,400.00	3
Do.....	1,375.00	1
Do.....	1,280.00	1
Do.....	1 5.60	1
Do.....	1 4.80	1
Machine shop.....	2,300.00	1
Machinist.....	2,250.00	1
Do.....	2,160.00	1
Painter.....	2,137.00	1
Rigger.....	2,137.00	1
Sewing-machine operators.....	3,375.00	1
Forewoman.....	1,820.00	1
Gas handlers, toxic.....	1,680.00	1
Do.....	1,640.00	5
Do.....	1,565.00	1
Do.....	1,400.00	4
Guards, gas patrol.....	1,512.00	15
Do.....	1,380.00	5
Hosemen.....	1,500.00	15
Do.....	1,400.00	1
Hosemen, chauffeurs.....	1,500.00	2
Inspectors, process gas masks.....	900.00	1
Janitors.....	1,365.00	2
Janitress.....	780.00	1
Laborers.....	1,375.00	398
Do.....	1,365.00	3
Do.....	1,140.00	100
Do.....	1 4.00	89
Labor boys.....	600.00	4
Do.....	360.00	1
Linemen, electrical.....	2,500.00	1
Do.....	2,290.00	3
Machinists.....	2,250.00	3
Do.....	2,137.00	2
Do.....	2,112.00	1
Do.....	2,088.00	1
Do.....	2,000.00	3
Do.....	1,860.00	2
Do.....	1,857.00	1
Do.....	1,800.00	1
Do.....	1,760.00	2
Do.....	1,620.00	1
Do.....	1 6.80	2
Do.....	1 6.00	1
Machinists' helpers.....	1,640.00	1
Do.....	1,500.00	3
Do.....	1,400.00	3
Do.....	1,280.00	2
Do.....	1,140.00	1
Machinists, second-class.....	1 5.60	3
Do.....	1 5.20	2
Mechanics.....	1,640.00	1
Do.....	1,200.00	2
Do.....	1 6.40	9
Mechanics, master.....	2,500.00	1
Messenger boy.....	600.00	1
Mixer, cement.....	1,400.00	1
Millwright helpers.....	1 5.20	2
Do.....	1 4.80	4
Operator, multigraph.....	1,700.00	1
Do.....	1,500.00	1
Operator, pump.....	1,890.00	1
Do.....	1,740.00	2
Do.....	1,375.00	3

1 Per day.

Number of civilians employed under the Chemical Warfare Service at large for fiscal year 1920—Continued.

Employees.	Rate per annum.	Expended, 1920.
<i>Wages—Continued.</i>		
		<i>Number.</i>
Operator, refrigerating.....	\$1,900.00	1
Operator, refrigerating machinery.....	1,750.00	1
Do.....	1,512.00	1
Operator, sewing-machine.....	1,050.00	2
Do.....	810.00	1
Packers.....	1,260.00	4
Painters.....	2,112.00	2
Do.....	1,956.00	1
Do.....	1,890.00	1
Do.....	1,857.00	1
Do.....	1.60	1
Painters' helpers.....	1,500.00	1
Painters, spray.....	1,500.00	1
Do.....	1,400.00	1
Do.....	1,375.00	1
Patrolmen, gas.....	1,512.00	1
Pipe fitters.....	2,500.00	1
Do.....	2,475.00	1
Do.....	2,375.00	1
Do.....	2,250.00	1
Do.....	2,160.00	1
Pipe fitter.....	2,137.00	1
Do.....	2,000.00	1
Do.....	1,960.00	1
Do.....	1,890.00	1
Do.....	1,875.00	1
Do.....	1,760.00	1
Pipe fitters' helpers.....	1,750.00	1
Do.....	1,640.00	1
Do.....	1,512.00	1
Do.....	1,500.00	1
Do.....	1,400.00	1
Do.....	1,260.00	1
Plasterers.....	2,750.00	1
Plumbers.....	2,250.00	1
Do.....	1.80	1
Do.....	1.70	1
Plumbers' helpers.....	1,400.00	1
Riggers.....	1,890.00	1
Do.....	1,760.00	1
Do.....	1,680.00	1
Plumbers' assistant.....	1.60	1
Pressman.....	1.40	1
Steam fitters.....	2,137.00	1
Steam fitters' helpers.....	1,400.00	1
Do.....	1,260.00	1
Storekeepers.....	1,900.00	1
Do.....	1,700.00	1
Do.....	1,566.00	1
Storekeepers' assistant.....	1,800.00	1
Storeman.....	1,200.00	1
Supervisors of operation and inspection.....	1,070.00	1
Do.....	922.00	1
Tender, water.....	1,980.00	1
Do.....	1,980.00	1
Do.....	1,800.00	1
Do.....	1,730.00	1
Do.....	1,740.00	1
Do.....	1,680.00	1
Do.....	1.40	1
Watchman.....	1.40	1
Welders, acetylene.....	2,500.00	1
Do.....	1.10	1
Workers, sheet metal.....	2,610.00	1
Do.....	2,372.00	1
Do.....	2,150.00	1
Do.....	2,112.00	1
Do.....	2,000.00	1
Do.....	1,300.00	1
Workers, sheet metal, helpers.....	1,300.00	1
Do.....	1,400.00	1
Do.....	1,200.00	1
Workers, chemical plant.....	1,000.00	1
Do.....	1,000.00	1
Do.....	1,000.00	1
Do.....	1,000.00	1
Do.....	1,000.00	1
Do.....	1,000.00	1

1 Per day.

Number of civilians employed under the Chemical Warfare Service at large for fiscal year 1920—Continued.

Employees.	Rate per annum.	Expended, 1920.
<i>Wages—Continued.</i>		<i>Number.</i>
Workmen, skilled.....	\$1,890.00	1
Do.....	1,878.00	1
Do.....	1,875.00	2
Do.....	1,857.00	1
Do.....	1,800.00	1
Do.....	1,780.00	1
Do.....	1,760.00	2
Do.....	1,750.00	2
Do.....	1,680.00	1
Do.....	1,620.00	1
Do.....	1,600.00	1
Do.....	1,565.00	1
Do.....	1,512.00	6
Do.....	1,500.00	4
Do.....	1,470.00	1
Do.....	1,400.00	4
Do.....	1,375.00	1
Do.....	1,260.00	2
Total.....	1,990,058.80	1,326
Salaries.....	560,452.60	292
Wages.....	1,990,058.80	1,326
Grand total.....	2,550,551.40	1,618

Mr. ANTHONY. What is the highest-priced civilian employee you have in your service?

Gen. FRIES. \$6,000.

Mr. ANTHONY. How many high-priced civilian employees do you have?

Maj. ATKISSON. About eight, running from \$4,000 up to \$6,000.

Mr. ANTHONY. Are they scientific men?

Gen. FRIES. They are all scientific men, chemists and others.

Mr. ANTHONY. It was stated to the Committee on Military Affairs when we were at work on the reorganization bill that you proposed to commission a number of these chemists and other scientific men, so that you would have them in your regular force of officers.

Gen. FRIES. Yes, sir; but, practically, we could not get any of them to accept commissions in the grades that their war service would allow us to give them.

Mr. ANTHONY. Did you get any of that type?

Gen. FRIES. We have three chemists. Most of the chemists who were offered commissions and who applied for commissions declined to accept them because of the grades that they would get.

Mr. ANTHONY. What were the highest grades offered to your \$6,000 civilian chemists?

Gen. FRIES. I think the highest grade was captain.

Mr. ANTHONY. What was the age of these men?

Gen. FRIES. Some of them are 45 years old. I would say this, Mr. Chairman, that the Chemical Warfare Service recommended the grade of major for all of these, where they were over 36 years old.

Mr. ANTHONY. Were these men who held emergency commissions during the war?

Gen. FRIES. All of those, yes, sir; but the grade that they could get was determined finally by the War Department, which decided to limit the grade given to them to that which they had held as emergency officers. Accordingly 20 of the number of those whom we recommended for commissions were put back one grade, from major to captain or from captain to first lieutenant, or first lieutenant to second lieutenant, because we had recommended a grade higher than that which they held during the emergency. We had 15 or 16 who declined.

DUTIES.

Mr. SLEMP. Is your service a production service, or is it simply an investigating and development service?

Gen. FRIES. Both, including also training in the field and the operation of gas troops. The law specifically prescribes for investigation, research, development, proving, manufacture, procurement, the operation of gas troops, and the training of the entire Army in chemical warfare, both defensive and offensive.

Mr. SLEMP. Are you producing any gases at your plant?

Gen. FRIES. Nothing but what is required for experimental and proving purposes.

Mr. SLEMP. Is most of the work you are doing there confined to discovering new gases and new explosives?

Gen. FRIES. It is not so much that at present. We have a small force on that. We take what has proven to be the best means of handling known substances and manufacturing them and studying their use in the field.

Mr. SLEMP. You do not have manufacturing facilities for gases to any large extent, do you?

Gen. FRIES. Yes. That is the largest chemical plant perhaps in the world to-day. When we want to make any of these special gases we have to make them ourselves because we can not get them at any other place. There is nobody else who makes them.

Mr. SLEMP. Most of your civilian employees are engaged in this sort of work?

Gen. FRIES. They are engaged in that work and in plant maintenance. We have a very large plant and in order that it shall not deteriorate so fast that it will be practically worthless to the country as a means of national insurance, should war break out, we have to keep the plant in good condition all the time.

MINIMUM FORCE.

Mr. SLEMP. What do you consider the minimum force that would be a nucleus around which you could gather a larger force to handle your facilities rapidly in case of emergency? What would you consider the minimum organization or the skeleton organization?

Gen. FRIES. That is just about the force we have at the present time, in the neighborhood of 1,500 civilian employees, and 12 battalions of gas troops, one battalion being at the Lakehurst Proving Grounds. We find that we have got to do more of this investigation and development work than we anticipated. We are in just as much touch as possible with the chemical industries so far that we :

already 15 of the foremost research and production chemists in the country as official advisers and we expect to have a great many more in the future. We did that to keep in contact with the chemical industry, and also to keep in contact with the colleges, but we can not reduce the research and development work below the point at which we have it now. In fact, we have not as many of those men as we ought to have at the present time.

COOPERATION WITH OTHER GOVERNMENT AGENCIES.

Mr. SLEMP. Do you work in cooperation with the Bureau of Standards?

Gen. FRIES. Yes, sir; we are working with them in several ways. We have two special problems on which we are working closely with them. One of our employees is stationed there all the time, and we have another very important problem that they are working on with us. We are getting information wherever we can get it, from the Bureau of Standards, from the Bureau of Mines, from the Department of Agriculture, and from all these other organizations or institutions that do research work.

METHOD AND CHARACTER OF INVESTIGATIONS.

Mr. SLEMP. Do you take a particular gas or a particular proposition and run it down to its ultimate conclusion, or are you working on a great many different possibilities at the same time?

Gen. FRIES. We are running these known ones down to the ultimate conclusion. That is the biggest thing we are really doing. Take these things, for example [illustrating]. This is the German method of putting over the gas. We call it DA. That is a carbolic acid, arsenic, and chlorine compound. It was the most dangerous thing the German had for us in 1918, but his difficulty was that he never worked out the mechanical means of getting it over except in this shell, which is highly inefficient, probably only about 2 per cent efficient.

Early in 1918, the early spring of 1918, the English and Americans discovered that this material could be driven off by heating it, and, say, five times as effectively. Then it became a great problem, a sort of race, among the Americans, the British, the French, and the German chemists to develop the means of putting it off by heat efficiently and getting away from putting it in high-explosive shells. At the same time we had to develop masks that would stop it. Our masks would not stop this stuff. They were absolutely useless against it. One of the greatest difficulties we had in the spring of 1918 in France was to find a way to make this canister (which purifies the gas) that would be effective. They found that this not being a true gas, went right through it, and at the same time they discovered that if they drove the material off by heat it would be five times as effective when fired in shell, and if it could be gotten into cans one could put off an unlimited quantity. We then evolved, with the British, this kind of protection to put around the box. We even went so far as to cable specifications for this to the United States. We had 200,000 of these protective covers made in England and perhaps 200,000 of another box. This cover increased the resistance of the

canister so that, with the already high breathing resistance that the man had to endure, it was very serious, the increase being about 25 per cent.

Mr. SLEMP. How much would you expend on a proposition like that?

Gen. FRIES. That is worth any amount it costs us, even if it is \$100,000,000. We probably spent in France \$100,000 working on that problem in one way or another, besides the time we spent over here. England, in the meantime, had developed this paper protection. You will notice that the wrapping is paper. It is a thin paper, just as it comes off the rolls, without any sizing in it. It is very thin paper, as you will see. There are probably 60 layers of such paper in each wrapper. The English made them in that way. Our people could not get proper paper, so they went to a felt filter and a different canister.

Mr. ANTHONY. Why do you have to protect the tin container?

Gen. FRIES. We do not have to, but in order to protect the valve the air is sent through there. This has to be perfectly tight all around. The fit had to be perfectly tight all around in order to filter this stuff out, so that the air that went into the mask was free of the gas or this substance. We had to make it big because if we did not the resistance to breathing would be too great.

Mr. ANTHONY. Where did the air come in?

Gen. FRIES. The air goes in through the whole surface.

Mr. ANTHONY. That is supposed to be porous?

Gen. FRIES. The whole thing is porous.

Mr. ANTHONY. I should think it would condemn a man to slow death to have to breathe through there.

Gen. FRIES. That was what we thought, but it is much better than this old one. We never issued these, but held them in reserve so that if the Germans got the D. A. in any quantities we would have this mask to stop it. We might not have stopped it at the front line, but we would have stopped it a little bit farther back.

This is the mask we are making [indicating], which was developed just before the armistice was signed. The charcoal and chemicals go in here [indicating], and that is fastened down, and then this filter is here. One trouble with the filter, which went on the outside, was that it gets wet and then it loses its effectiveness and the resistance goes up.

The British, instead of using a felt filter, used a paper filter. This is the mask we are developing now, and that is the only thing we have which will keep out this gas and certain others like it. This mask was developed before the armistice. That brings up the subject of masks, which I want to touch on quite a little bit.

MANUFACTURE OF GAS MASKS.

Mr. ANTHONY. How much of this appropriation are you asking for the manufacture of masks?

Gen. FRIES. Only \$500,000 of that appropriation. Our requirement was for \$8,492,000, of which \$4,500,000 was to be for masks, because we have no masks to-day outside of 25,000 or 30,000 made that will protect our men against the toxic smoke candle.

Mr. ANTHONY. Is that effective against that gas?

Gen. FRIES. It will stop that.

Mr. ANTHONY. You propose to use \$500,000 for the manufacture of an effective mask to protect the American soldier from that gas?

Gen. FRIES. Yes; and we are now spending nearly two million on this mask.

Mr. ANTHONY. What does this mask cost; that is, what does the individual mask cost?

Gen. FRIES. It costs about \$10 now, complete. I have here an old mask. The new mask has no mouthpiece or nose clip. The old type, which is all we have in reserve, is the British type, with a mouthpiece and a nose clip. That is not a fighting or working mask. It was developed at the time when cloud gas was made by putting big cylinders under a firing trench. That took weeks to install and is shown on the slide I have here. Alongside of it is shown the modern cloud gas produced by smoke candles, which will go through the old canister as though you had none at all.

Mr. CRAMTON. In connection with that, as illustrating your policy, when you have developed an item, such as that mask, and an item in which I suppose you will expect very considerable advance and new methods of fighting, defensive or offensive, are discovered, to what extent do you think it wise to manufacture and stock the Army with a certain type?

Gen. FRIES. I think it absolutely essential that we manufacture enough of these masks with this canister and an equal number of spare canisters, because the canister in the field will last probably only a quarter as long as the facepiece—enough for our National Guard, our Organized Reserve, and our Regular Army, with a sufficient amount of reserve.

Mr. CRAMTON. You are figuring on about 500,000?

Gen. FRIES. I had figured on 800,000 of those, possibly.

Mr. CRAMTON. That is, to completely equip all our forces with that one item. What do you think of a possibility, about a year after you have accomplished that, of the development of a new mask that will make that one as obsolete as the one you have there?

Gen. FRIES. I think it is very slight. The only changes that have come since the days when the British in 1916 put this into use have been those made necessary, as we realized ourselves, to get a fighting mask, a mask that a man could work in and sleep in, and in which he can work as long as he can go without food and water. But he could not do that with the old mask, because it is practically impossible for any man to wear it longer than six or eight hours.

Mr. CRAMTON. I am speaking about the filter—

Gen. FRIES (interposing). I am coming to that. I have spoken of the face piece because that part is two-thirds of the whole cost of the mask. The only change in this canister—

Mr. Sisson (interposing). I thought the whole outfit cost \$10.

Gen. FRIES. It does, and about two-thirds of it is in this part [indicating the face piece]. The canister is only about one-third. The only radical change that has come was caused by this one thing. In other words, we had to put a filter in the mask.

Mr. CRAMTON. When you say this one thing, to which do you refer?

Gen. FRIES. This sneezing gas and this development of the smoke candle, which the British were manufacturing at the rate of 200,000 week when the armistice was signed.

Mr. CRAMTON. Is that the new way of using the same sneezing gas?

Gen. FRIES. Exactly. The great development in the mask has been to put in the felt to filter the air before the air gets to the chemicals.

Mr. CRAMTON. Then there are really three possibilities that might make the canister largely obsolete. One would be the possibility of your securing a more effective defense against that gas. Second, there would be the possibility of a different gas being developed that would require a different defense; and possibly third, the development of new methods of using these gases?

Gen. FRIES. Yes, sir.

Mr. CRAMTON. Are you prepared to say that you have reached such perfection in the art with reference to this particular item that you think it is safe to fully equip the Army with a certain item when the probabilities of use within the next two or three years are so remote?

Gen. FRIES. I say we ought to go ahead and manufacture the new mask, because if we are going to be prepared at all these things are vital. Our Army could not live a day opposing an enemy with that smoke candle, and it has been shown what that could do, because it was tested out before the armistice. This is not guesswork; it is a proven fact, and we can prove it anytime.

Mr. CRAMTON. I am speaking just now more of a type than of policy. I think we all feel the very fullest sympathy with the idea of your having quite free rein in the development of matters of science. If at each time when you get an item at the point where it seems to you you have reached the limit of development, millions of dollars are spent in fully equipping the Army with that item, that tends to interfere with your securing funds for new scientific development, and does not the history of warfare show that just when experts think that they have reached the limit of development in certain items, something happens to show that they had hardly commenced the possibilities?

Gen. FRIES. That is very true, but we must have masks as a measure of insurance, so that we could meet the first onslaught with what we have on hand. We have not anything to-day in the mask line as a protection against this. Let me take up your question a little further, and show how far we have gone in this development: work and what we see in the future. I believe the filter, which is an expensive material, costs us about 75 cents. We were working before the armistice, and we have recently gotten into it very deeply as the use of a paper filter proposition something like this [indicating] and that is one of the problems we are working on most carefully and believe we will get worked out so we will replace that filter by this kind [indicating], which will have the same shape, which will be more effective and will cost about 20 per cent of what that cost [indicating]. It will reduce the cost of the mask by 60 cents. We know, so far as the effectiveness of this stuff is concerned, that if you get close to some of the most effective of it will probably get through. At a distance in the field it will not. But we are overcoming that and we will put in new improvements as fast as we get them. For instance, this carrier here is a recent thing. We have made no new carriers because we have more than enough of the old ones left over. We

we see a development such as this longer tube we stop purchasing any of the tubes until we decide whether or not there will be a change.

Mr. CRAMTON. As soon as you make a development of that sort to what you think is the highest state of the art and fully equip our Army with it, that progress becomes the common property of all other nations.

Gen. FRIES. That is very true. But we are informed that the British have already issued masks to their army with the filter in there. We understand that the French are going ahead with mask manufacture. We have information to that effect.

Mr. CRAMTON. It is to be expected that all those nations are working on these lines.

Gen. FRIES. I would not suggest mask manufacture if I felt that we had anything that would stop the toxic smokes. We would know that here is a thing that our Army could not face a day unless we have this mask, and we should have this because our men can not fight without it.

Mr. CRAMTON. I want to ask you just one more question, because this bears more particularly upon the matter of type. It is not your policy at any time you secure a new development or invention which you think is an improvement over the previous development, to equip our forces to the limit with that item?

Gen. FRIES. Absolutely not. We are working on a better development of this smoke candle, but when we are working on anything like that we advocate only the manufacture of enough to test it. We may want 50,000 of those some day to try them out in the field, so that we may know what they will do over a distance of 3 or 4 or 5 miles. Because we know what one candle will do, gives us no real idea about what 50,000 of them will do, scattered over a number of miles. We are not going into the manufacture of these things except to give us what may be necessary for proving.

Mr. DENT. How long does it take to manufacture a complete mask?

Gen. FRIES. We are manufacturing in the neighborhood of 400 masks and 600 canisters a day.

Mr. Sisson. How long would it take you to enlarge your plant so that you could make 6,000 or 60,000 a day?

Gen. FRIES. We will soon have our plant in shape to make 6,000 a day as quickly as we can train the personnel. It will take us six months to produce the first million masks, but after that we could make a million a month. The biggest job is in the training of the personnel, because every part of this mask has to be put together by highly trained people, because if it is not made properly the gas goes through it, without going through the filter, and somebody dies. Our work during the war showed the time it takes with practically unlimited funds and unlimited men. On May 16, 1917, the War Department was authorized to go ahead and construct these masks.

Mr. ANTHONY. Tell us how much of this estimate you are asking for you propose to use for the new production of masks and how much you intend to use for experimentation.

Gen. FRIES. Of the \$4,457,376.20, \$500,000 would go into production.

Mr. ANTHONY. And how much for experimentation?

Gen. FRIES. You really have to take the two items together. The amount for Chemical Warfare Service investigations, \$1,754,000, is a little over half of it, because that is our big work.

Mr. ANTHONY. Half of the \$1,754,000 would go into experimentation on masks?

Gen. FRIES. No; a little over one-third of the whole appropriation asked for is for Chemical Warfare Service investigations, the amount being \$1,754,000.

Mr. ANTHONY. How much of it would go into mask experimentation?

Gen. FRIES. \$150,000 out of the \$1,754,000.

Mr. ANTHONY. You propose to expend \$500,000 for new production and \$150,000 for experimentation in mask production?

Gen. FRIES. Yes, sir.

CHEMICAL WARFARE FIELD SERVICE.

Mr. ANTHONY. Let us take up the analysis of the appropriation beginning with the first item, for Chemical Warfare field service. You are asking for \$507,000 for the Chemical Warfare field service. What is the meaning of that item?

ADMINISTRATIVE SERVICES.

Maj. ATKISSON. That covers administration work for the office of the chief in Washington, at Edgewood Arsenal, at the Lakehurst Proving Ground; and for the supply depots of this service. It is divided somewhat as follows: \$55,000 for the chief's office; \$253,000 at Edgewood, and \$98,000 at Lakehurst, and \$100,000 for the supply depots.

Mr. ANTHONY. Does that go into the pay of civilian employees largely?

Maj. ATKISSON. For the pay of civilian employees and for supplies that is, the routine supplies in carrying overhead.

Mr. ANTHONY. What class of supplies?

SUPPLIES AT EDGEWOOD ARSENAL.

Maj. ATKISSON. Take, for instance, the item for supplies at Edgewood Arsenal. The amount for that is \$60,000, and that will cover office supplies, material used in the upkeep of material in storage, and then one important item there is for protective paint—gas-resisting paint in protecting shells, bombs, and things of that kind. They have a very great amount of that material in storage at the Edgewood Arsenal which must be protected.

Gen. FRIES. This covers practically the handling of the supplies of the Chemical Warfare Service, the personnel, and certain routine supplies such as Maj. Atkisson has spoken of.

MECHANICAL ASSISTANTS, WASHINGTON OFFICE.

It includes the Washington office, and under that we are asking for a few mechanical assistants at an expense of \$35,000. In other words, that is an item which I would like to submit because we have

no authority at present under the legislative, executive, and judicial act or by any other act that will allow us to pay over \$1,800 in the Washington office. All other departments have an item such as I wish to submit, providing for the hire of technical and mechanical assistants up to a limit of \$3,500.

Mr. ANTHONY. Why do you need those in your Washington office?

Gen. FRIES. We need a very few in order to keep control. Our Washington office is only a control office; we do practically no designing except such as may be necessary for control purposes. But when we send out to get information from the Bureau of Mines or the Bureau of Standards, we have got to have technical men to send.

Mr. ANTHONY. Why can that not be done by your technical men at the Edgewood Arsenal?

Gen. FRIES. Then we would have to pay their traveling expenses back and forth, because so much of this material that is available in that way for us is in Washington, and I might say that in the Ordnance Department last year they had \$400,000 for that purpose.

Mr. Sisson. Why did you not ask for that in the legislative bill? That provides for the Washington office.

Gen. FRIES. I submitted that at the end of the hearing, but they did not put it in the bill. It really belongs here because it comes out of field money.

Mr. Sisson. You can not appropriate for anything for the Washington office and take it out of the field service. We provide that the appropriations for the civil establishments in Washington shall come out of one bill so as to keep track of the appropriations, and if you provide for the expenses of the Washington office out of one appropriation and then also provide for the Washington office out of another appropriation we do not know how much the overhead charges increase.

Gen. FRIES. We were following precedent, because I think practically all of the other departments have such an item as this, and if we do not have it it will handicap the office, and we do not get it at all if it is not done.

Mr. ANTHONY. You say you want \$35,000 for that purpose for the Washington office?

Gen. FRIES. The amount is \$35,000, and that is to pay the expenses of officers and civilians who are attending trials and tests. They may go out from the Washington office or they may be brought in here. The \$35,000 is the only amount to be spent for any service of that kind in Washington.

Mr. ANTHONY. The clerks and other employees in the Washington office are taken care of in the legislative bill?

Gen. FRIES. Yes, all except the technical assistants. However, the trouble with the legislative bill is that it limits us to paying salaries up to \$1,800, and we can not get the men we want for that amount.

Mr. ANTHONY. Do you get supplies from any department of the War Department?

Gen. FRIES. We get office supplies, I believe, from the Quartermaster Department.

Mr. ANTHONY. You have no provision in here for office supplies.

Gen. FRIES. For the Washington office, no.

Mr. ANTHONY. Where do you get your office supplies for your activities outside of Washington?

Gen. FRIES. They are all paid for from the funds we have under the Edgewood Arsenal.

Mr. ANTHONY. You only get your supplies for the Washington office from the Quartermaster General?

Gen. FRIES. Yes.

Mr. ANTHONY. You have charge of your own storage?

Gen. FRIES. Yes; that is really turned over to us under date of January 15.

Mr. Sisson. What salaries do you propose to pay out of this \$35,000 you are asking for?

Gen. FRIES. I expect to have one technical assistant at \$4,000 and one at \$2,400; we might have one at \$3,000.

Mr. Sisson. Will you put in the record a statement showing what you propose to pay to the employees you propose to get out of this \$35,000?

Gen. FRIES. Yes, sir.

(The statement referred to above follows:)

1 mechanical engineer, at \$4,000.....	\$4,000
1 chemist, at \$3,000.....	3,000
1 executive assistant, at \$2,500.....	2,500
2 mechanical engineers, at \$2,400 each.....	4,800
2 chemists, at \$2,400 each.....	4,800
2 chemical engineers, at \$2,400 each.....	4,800
1 patent expert, at \$3,000.....	3,000
2 technical assistants, at \$2,000 each.....	4,000
1 statistician, at \$2,400.....	2,400
2 mechanical copyists, at \$840 each.....	1,680
Total.....	\$34,480

CHEMICAL WARFARE AMMUNITION.

Mr. ANTHONY. Your next item is for chemical warfare ammunition, for which you are asking \$210,000.

Gen. FRIES. That is for the supply of the Army for chemical warfare ammunition except chemical warfare troops, which are treated specially. The amount is for materials provided for by approved tables of allowances of the War Department.

Mr. ANTHONY. What would you supply to line troops under that head?

Gen. FRIES. At present all that the War Department has authorized is smoke shells and a very few gas shells.

Mr. ANTHONY. Do you use any gas in hand grenades?

Gen. FRIES. We have not really any gas; we have a smoke material that is issued. Hand grenades are going out of fashion; I think, unless possibly some new gases may come in use in the future.

Mr. ANTHONY. Would this chemical warfare ammunition be used by the troops in practice, or would it be held by them in reserve for actual use?

Gen. FRIES. This is for training; it would be used in practice.

Mr. ANTHONY. You are asking for chemical warfare stores and supplies \$800,000.

Gen. FRIES. \$500,000 of that is for the manufacture of material. The rest is for the supply of chemical warfare troops in the field.

Maj. ATKISSON. That is taken from the approved table of allowances.

Gen. FRIES. We need more practice with this than with many other kinds of materials.

Mr. ANTHONY. As I take it the rest of the item that is to be devoted to supplies includes all kinds of miscellaneous supplies that go into the manufacture of the articles you are producing there?

Gen. FRIES. Yes, sir; and also for the routine training of chemical warfare troops.

CHEMICAL WARFARE INVESTIGATIONS.

Mr. ANTHONY. Under the heading of chemical warfare investigations, you are asking for \$1,754,000. How do you propose to use that?

Gen. FRIES. Under that we have already 52 approved items of investigation that have been submitted to the War Department and approved, and they cover experiments for different calibers of shells to determine the proper bursting charge which we have not now gotten worked out, but which must be worked out differently for different gases.

Mr. ANTHONY. Instead of taking up 52 different lines of investigation, would it not be better to confine yourselves to a few of the more important ones?

Gen. FRIES. I said we had 52 items of investigation. Certain of those are subdivided so that one thing may cover a dozen different items. In other words, we have got to have different sizes of boosters for each different caliber of shell. We have now 3,000,000 shells at Edgewood Arsenal for chemical warfare, but they are of very minor use until we get this development. We could not use our gases efficiently.

Mr. ANTHONY. Are those loaded shells?

Gen. FRIES. No; they are not loaded shells.

Mr. ANTHONY. This is to determine how the 3,000,000 can be most properly loaded?

Gen. FRIES. That is with the bursting charge; the rest of the loading is all worked out. That is one of the important things. There is \$25,000 allotted to that. We think we are going ahead; we have many extensive investigations on these different substances. This is toxic smoke one of the most important pieces of work we have got to work out to a final conclusion, that is the best type of candle and the best of these various materials. There are other materials. For instance, we have a material twenty-five or thirty times as powerful as this.

Mr. ANTHONY. Why is it that these investigations involve the use of so much money? Where does the money go?

Gen. FRIES. About 70 per cent of it goes into technical labor and ordinary labor, and the rest of it into supplies.

Mr. ANTHONY. You intend then to produce these things in quantity?

Gen. FRIES. No, except in the quantity necessary to prove them. When we take one of these substances, in order to work it out, we start with a little laboratory arrangement which may take a room about one-quarter the size of this room, and we work out that material and figure out the manufacturing method of producing it. Then the

next step is to produce it on a small scale, which may cost many thousands of dollars, but until we can do that we do not know whether it will be successful.

Mr. ANTHONY. I think a year ago it was stated by the Chief of Staff that our military policy in reference to chemical warfare would be to carry on investigation and development, to keep fully abreast of these things in warfare, rather than to use them offensively, or prepare to use them offensively. You are practically going ahead not only with investigation and development, but you are also preparing to use these gases offensively, are you not?

Gen. FRIES. Yes, sir. As a matter of fact, we have to carry these investigations into the offensive in order to know what we have really to defend against. While we do not see any radical change now from the present mask, except improvements in it, yet the only way that we will be sure that we know as much as the other fellow is to carry along our investigations into these offensive substances.

Mr. ANTHONY. Which is the more important, to carry on the defensive phase of it or the offensive phase?

Gen. FRIES. I would say offhand, the offensive, because that is the only way we will be able to know what we have to defend against. None of the foreign countries is going to tell us what they think we do not know. If they have new substances they are going to keep them for themselves. The only line we would get on substance that might go through the mask is what we get ourselves.

Mr. ANTHONY. You are asking for \$1,700,000 merely to carry on these investigations. Would you not do a lot of work with less money, with half of that amount? Could you not do practically as much effective work as is necessary?

Gen. FRIES. No, sir, I do not think so. That covers the expense of a force of 300 technical men, and it would take us probably twice or three times as long if we had half the amount of money.

Mr. ANTHONY. Are these 300 technical men workmen or are they all scientific men?

Gen. FRIES. They are all scientific men.

Mr. ANTHONY. All of them get quite large salaries?

Gen. FRIES. They get about \$2,500 on the average. That is not much more than we pay some of our skilled laborers.

Mr. ANTHONY. We are confronted by the same situation in your service as in the Air Service, where the other day we found that at Dayton they were carrying 250 or 275 civilian aeronautical engineers at high salaries merely for experimentation and development, and it strikes the ordinary civilian mind that half or less than half the number of men certainly ought to be able to carry on that type of work as effectively as the larger number.

Gen. FRIES. We worked this over with extreme care to get down as low as possible. We do not want to build up a big force. We feel that our efficiency should be measured in what we put out rather than by the money we spend. We feel that we are charged with the defense of the entire Army against all chemical warfare materials—materials that affect every man in the Army from the commanding general down to the last private. We are also charged with the investigation of these offensive materials and the training of the Army in the use of them, and we do not see how we are going to get anywhere in the near future without this amount of funds.

considering that the whole safety of the Army depends on our work. Therefore, I feel that this is a moderate estimate.

CURRENT EXPENDITURES FOR INVESTIGATIONS.

Mr. ANTHONY. How much did you expend during the current year for chemical warfare investigations?

Gen. FRIES. We can only tell you for the first six months of the year.

Mr. CRAMTON. Of course. You can tell what you have actually expended for the first six months and what you will expend for the balance of the fiscal year.

Gen. FRIES. Maj. Atkisson, in command of the Edgewood Arsenal, can tell you about that.

Maj. ATKISSON. Our force is running at about the rate of \$1,000,000 per annum, and we are just beginning to build up, because we did not get started until last fall, because of the fact that the reorganization took place on the 1st of July.

Mr. CRAMTON. You are referring only to your pay roll and not to the whole expenditures of your service. I am speaking of the \$1,000,000 just referred to as the total expenditures of this service.

Maj. ATKISSON. That includes the total expense for investigation, including salaries and supplies.

Mr. CRAMTON. And those expenses will run about \$1,000,000 for the full year?

Maj. ATKISSON. Yes, sir.

Gen. FRIES. But we are unable to cover some of the problems that we feel are urgent, with that force.

NUMBER OF PLANTS.

Mr. ANTHONY. How many plants are you carrying on now?

Gen. FRIES. We are carrying on 11 plants, all of them at Edgewood.

Mr. ANTHONY. That is, your proving and training and manufacturing activities are all concentrated at Edgewood?

Gen. FRIES. The proving ground is at Lakehurst, N. J. The only other things we have outside of Edgewood are the proving ground at Lakehurst and 16 salt wells in Midland, Mich., from which we get bromine.

PRODUCTION OF BROMINE—CONTRACT WITH DOW CO.

Mr. ANTHONY. Can you not buy bromine in the market?

Gen. FRIES. The Chemical Warfare Service sunk these wells and built the plant to connect them up during the war, and it is being operated by the Dow Chemical Co., who purchased the land and installed the whole equipment for the Chemical Warfare Service.

Mr. ANTHONY. That is, the Government purchased the land and equipment of this chemical company?

Gen. FRIES. No; they bought the land and equipment and installed it under contract, and the brine is turned over to the Dow Chemical Co. to manufacture bromine salts, from which bromine is made.

Mr. ANTHONY. So the Government simply owns the wells and the land upon which they are located?

Gen. FRIES. And the power plant to run them and also the pipeline.

Mr. ANTHONY. The actual work of manufacturing is done by the Dow Co.?

Gen. FRIES. They manufacture the bromine salts and the actual manufacture into the bromine itself is done by us at Edgewood.

Mr. ANTHONY. I want to get at the relation of this company to your department.

Gen. FRIES. Under contract it makes the bromine salts for the Chemical Warfare Service.

Mr. ANTHONY. They are operating the plant, and we are paying them so much for the product, yet the Government owns the plant.

Gen. FRIES. Yes, sir.

Mr. ANTHONY. Do they pay you an adequate return on value of the plant?

Gen. FRIES. They had a contract to furnish 1,000,000 pounds of these salts at a given rate, which included the operation of the plant for the purpose, and that is the only price fixed for anything; the price was fixed in the contract drawn during the war.

Mr. ANTHONY. How long does that contract run?

Gen. FRIES. It will run until they complete the delivery.

Mr. ANTHONY. Of the 1,000,000 pounds?

Gen. FRIES. Yes; the bromine is a very difficult thing to get during war times.

Mr. ANTHONY. Was this one of the war contracts that is being allowed to run to fulfillment?

Gen. FRIES. Yes, sir.

Mr. ANTHONY. Until you receive the 1,000,000 pounds?

Gen. FRIES. Yes, sir. In other words, bromine is so difficult to get, and there is so little of it in this country, that it was felt the contract should be fulfilled.

Mr. ANTHONY. Are they producing it in an economical manner?

Gen. FRIES. Yes, sir.

Mr. ANTHONY. Producing it under this contract as cheaply as we could buy it in the markets of the world?

Gen. FRIES. Yes; in fact I do not know whether we could buy it anywhere else at the present time; these are the best wells in the country.

Mr. ANTHONY. What I want to get at is whether this bromine is costing you proportionately as much as helium gas is costing the Chemical Warfare Service?

Gen. FRIES. No, sir. Gen. Sibert studied very thoroughly the question whether to let that contract lapse or allow it to go through to completion, and it was not until some months after the armistice that it was recommended by Gen. Sibert and approved by the War Department to let the contract be completed. The contract involved the settlement of excess facilities. In other words, we avoided paying probably as much as \$200,000 for excess facilities, and I recall Gen. Sibert felt that by allowing them to complete the contract we were getting out of it much better than to pay for the excess facilities and stop the contract.

Mr. ANTHONY. How do you pay for the products of this plant?

Gen. FRIES. The plant was paid for; the Government paid for the total cost.

Mr. ANTHONY. I mean, as they deliver these bromines to you how do you pay for them; do you pay for them out of this appropriation here, or out of one of your old war appropriations?

Gen. FRIES. One of the old war appropriations; those funds were available for that purpose, and were allotted before they expired. Maj. Coombs informs me that it was really being paid out of a lump sum turned over by the Ordnance when the Chemical Warfare Service was first formed. The contract was let by the Ordnance Department, and turned over to the Chemical Warfare Service.

Mr. ANTHONY. When does that contract expire?

Gen. FRIES. It will be completed before June 30.

Mr. ANTHONY. What do you propose to do when this contract is completed; to keep these wells or to sell them?

Gen. FRIES. I have felt that perhaps we ought to keep that plant as a reserve, but there are some in the Chemical Warfare Service who differ with me, and the question is coming up for discussion and recommendation as to whether it will be better for us to hold those wells, or to sell them.

Mr. ANTHONY. What do you do with this amount of bromines; do you use them all in your manufacturing work there?

Gen. FRIES. No; we will not in a long time.

Mr. ANTHONY. Or are you putting them in your reserves?

Gen. FRIES. We are putting them in our reserves; they keep indefinitely; they are a white powdery salt.

Mr. ANTHONY. What is the cost per pound?

Maj. COOMBS. 45 cents.

Gen. FRIES. That covers the excess facilities that the Dow Chemical Co. had to install; the net cost is 30 cents a pound.

Mr. CRAMTON. They have a large manufacturing plant in addition to this one, have they not?

Gen. FRIES. Yes, sir; in Michigan.

Mr. CRAMTON. A large plant manufacturing other chemicals?

Gen. FRIES. Yes, sir.

Mr. CRAMTON. General, if you have not already gone into this, how large is your officer and enlisted personnel in this branch?

Gen. FRIES. We have at the present time 59 officers and about 900 men, out of a total authorized allowance of 100 officers and 1,200 enlisted men.

Mr. CRAMTON. How many of the officers have any particular scientific chemical training?

Gen. FRIES. A very small percentage. We discussed that before——

Mr. CRAMTON (interposing). Oh, before I came in?

Mr. ANTHONY. That is in the record.

Gen. FRIES. We can not get them to accept commissions.

Mr. ANTHONY. Did you complete the analysis of those chemical warfare plants and properties?

Gen. FRIES. We have not gone into that in detail, though we have it in complete detail here, if you want it.

Mr. ANTHONY. Well, did you say whether any part of this appropriation was to be used for the operation of the Michigan plant?

Gen. FRIES. No, sir.

Mr. ANTHONY. That is under contract?

Gen. FRIES. No, sir.

UPKEEP OF PLANTS.

Mr. ANTHONY. Just tell us how you propose to expend this \$615,000 generally speaking.

Gen. FRIES. Upkeep and maintenance of those 11 plants that we spoke of, those principal plants—and this includes the whole of the upkeep and maintenance of the Edgewood Arsenal and what repairs may be necessary to them to keep them in operating condition. Those plants unless looked after will deteriorate very rapidly.

Mr. ANTHONY. Does this involve any additional construction?

Gen. FRIES. No; repairs to plants and the water-supply system.

Mr. ANTHONY. Practically all maintenance, then?

Gen. FRIES. Practically all maintenance; yes, sir.

CHEMICAL WARFARE TRAINING.

Mr. ANTHONY. Under the head "Chemical Warfare Training," you ask for \$150,000; how do you plan to expend that?

Gen. FRIES. As I stated before, we are charged with the training of the Army in chemical warfare, both in offense and defense, and of this amount \$60,000 is allotted to training in corps and territorial department headquarters and division headquarters.

Mr. ANTHONY. Does that mean that you will have detachments of Chemical Warfare troops on duty with the troops in these corps areas instructing the other troops in the use of Chemical Warfare material?

Gen. FRIES. This refers only to an allowance as we have figured of one officer, two or three enlisted men, and perhaps one civilian clerk in each of these places. It covers all of the expense connected with that and also the supplies that they will use in those places.

Mr. ANTHONY. In other words, it covers the Chemical Warfare activities in each of the nine corps areas?

Gen. FRIES. Yes; and also the 11 division headquarters and the Army in Hawaii, Philippines, and Germany.

Mr. ANTHONY. For training purposes only?

Gen. FRIES. Yes, sir; \$60,000 goes for that purpose and for transportation and special materials that have to go with them for carrying out the training, \$48,000 is allotted.

Mr. ANTHONY. The bulk of it would go for the purchase of materials used in this work, then?

Gen. FRIES. I have not figured that close enough to tell you exactly, but I would say roughly speaking a little over half.

Mr. ANTHONY. Then the transportation of officers and men engaged in this work would come out of other appropriations?

Gen. FRIES. Yes, sir; but at times we have had to have one company at each headquarters for the Chemical Warfare Service, and these are supposed to serve for our supply work there as well as the training; that is all figured in this.

Mr. ANTHONY. That is, you include the cost of the manufacture of the supplies and let it go into this training item?

Gen. FRIES. Yes; that is, this second item of \$48,000 particularly

CHEMICAL WARFARE PROVING GROUND, LAKEHURST, N. J.

Mr. ANTHONY. Chemical Warfare proving ground, \$133,000; is that all expended at Lakehurst?

Gen. FRIES. Yes, sir; that is to be expended at Lakehurst; there is where we have to prove out the artillery gas ammunition—all of it—except such little experiments as we may carry on at Edgewood by exploding shells on the ground; but whenever there is artillery firing of gas we have to do that at Lakehurst.

Mr. ANTHONY. How many acres of ground do you have at Lakehurst?

Gen. FRIES. We own none at present, and that is a matter that will be up for discussion this afternoon. There is a bill in to purchase 875 acres at Lakehurst, but we have requested the purchase of 16,000, because we can not do anything in the line of proving with 875 acres.

Mr. ANTHONY. You are now using the plant there that you acquired during the war?

Gen. FRIES. Yes, sir; at a cost of a million and a half dollars.

Mr. ANTHONY. Of what does it consist?

Gen. FRIES. It consists of quarters for officers and men, platforms and gun sheds for firing; storage houses, three or four of them at least with very heavy concrete in the first floor on account of their containing high explosives that might explode and endanger people; also a range laid out with a telephone system, trenches, and observation towers.

Mr. ANTHONY. Are these improvements in the shape of buildings and gun platforms located on the ground owned by the Government?

Gen. FRIES. No, sir.

Mr. ANTHONY. Is it under lease now?

Gen. FRIES. It is under lease. As I understand, the lease has expired and a new lease is under negotiation.

Mr. ANTHONY. Has the Government an option for the purchase of this ground?

Gen. FRIES. I think not. The 875 acres are under requisition; the ground can be purchased at \$10 or a little less per acre.

Mr. ANTHONY. What does it cost you per annum for the field of 16,000 acres you are using at the present time?

Gen. FRIES. It has never been settled. They ask, I think, \$2 an acre.

Mr. ANTHONY. \$2 an acre rental for ground that can be purchased for \$10 an acre?

Gen. FRIES. Yes; or probably \$9 an acre in that quantity.

Mr. ANTHONY. They are profiteering a little, it would seem to me.

Gen. FRIES. We have been fighting it very hard; but that is the figure they put in.

Mr. ANTHONY. Who determines the payment of rents; some of these war boards?

Gen. FRIES. The real estate service—that is out of our hands practically entirely now.

Mr. ANTHONY. It is not a claim that grew out of the war, it is a claim before the real estate service?

Gen. FRIES. Yes, sir; it is not a war claim that I know of; it is a matter with the real estate service.

Mr. CRAMTON. Are these improvements all on the 875 acres?

Gen. FRIES. I think so, except part of the range that was prepared.

Mr. CRAMTON. And the only adjacent available property is the 16,000 acres to which you have referred?

Gen. FRIES. I do not quite understand your question.

Mr. CRAMTON. Is there available property adjacent to the land on which the buildings are other than the 16,000 acres to which you have referred?

Mr. FRIES. No; practically not. The Navy has purchased for their balloon and air service the large block of ground which joins this tract on the east and on which they are building the biggest hangar in the United States; and the Camp Dix rifle range adjoins it on the west. In connection with the use of the 16,000 acres, the Camp Dix people are very anxious about it because they can not get proper artillery practice with what they have; and they could combine their artillery with the training of the West Point cadets, who I understand are expected to train in the summer time at Camp Dix hereafter—all of these things could all be done on the same area.

Mr. CRAMTON. It is possible, then, for more than one organization to make use of the piece of ground?

Gen. FRIES. Absolutely; that is what we hope to do.

Mr. ANTHONY. What is this land, largely pine barrens, as they call it?

Gen. FRIES. Pine barrens; it is sandy soil with scrubby pines on it; and the only thing of value actually in that country at all are occasional cranberry bogs, and there are very, very few embraced in this 16,000 acres.

Mr. ANTHONY. None of it is under cultivation?

Gen. FRIES. Practically none at all unless in little patches; there may be a few little patches under cultivation.

Mr. ANTHONY. Is there any open country in it, or is it all covered by scrub pines?

Gen. FRIES. It is mostly scrub pines; but the ranges were cleared by the Government during the war.

I would like to explain further why we need that. The 875 acres is all right for the buildings, but it would be merely a little military post. If we let loose gas enough to determine what it would do in war time on a considerable scale we can not do it on a less area than 16,000 acres; it would go too far; and that is the difficulty we face in trying to do proving at Edgewood. We need a place where we can count on gas going 6 miles, we will say, without hurting anybody.

Mr. ANTHONY. How large a reservation have you at Edgewood?

Gen. FRIES. 3,400 acres was set aside from 35,000 acres purchased by the Ordnance; but the 35,000 acres is split up by the Chesapeake Bay on one side of it, the Gunpowder River near the western end and the Bush River near the center.

Mr. ANTHONY. The Ordnance Department has a long firing range there, has it not?

Gen. FRIES. Yes, sir.

Mr. ANTHONY. Do you utilize that for your experiments?

Gen. FRIES. No, sir; we utilize some of the land connecting with that range. We are quartered on the west end of that 35,000 acres on what is known as the Gunpowder Peninsula, containing probably 8,000 acres, of which we have 3,400 acres next to the Pennsylvania

Railroad on the north. The remainder is still under the jurisdiction of the Ordnance Department. We have used some of that and in fact must use it for our experiments. Here is a map of the entire reservation; the red border incloses the entire 35,000 acres. Edgewood Arsenal is at present using this piece here; we very much need this other piece. In fact, that is a matter of controversy now.

Mr. ANTHONY. Have you not got to get it from the Ordnance Department?

Gen. FRIES. Yes, sir.

Mr. ANTHONY. What is the longest range they have?

Gen. FRIES. I think they can get nearly 26,000 yards on the land targets.

Mr. ANTHONY. What is the longest range you get at Lakehurst?

Gen. FRIES. About 15,000 yards.

Mr. ANTHONY. I suppose you want to get off there by yourself at Lakehurst because you are not a very popular neighbor when you get to using this gas, I imagine?

Gen. FRIES. No, sir. We can not get range enough; if we let loose anywhere in here enough gas to go 6 miles it will go away out over these water areas over which we have no control. We can get a range of perhaps three miles and can carry on little experiments, but when we want to carry on a big experiment under ordinary battle conditions, we find ourselves unable to do so because of the lack of range.

Mr. ANTHONY. When you turn loose a lot of gas are you not likely to poison a lot of the inhabitants of the neighborhood around Lakehurst?

Gen. FRIES. No, sir. There is no difficulty in the way of policing that area so that no one will be in there; and we can tell almost exactly how far the gas is going.

Mr. SLEMP. Does this estimate take care of the upkeep of the acreage there?

Gen. FRIES. Yes, sir; there is practically no upkeep except to keep the brush out of the rifle range.

Mr. CRAMTON. You do not think it will be feasible to conduct such occasional experiments—it seems to me that they must be only occasional—on some Army reservation such as Benning?

Gen. FRIES. We could, but considering the plant that ought to be installed in order to take care of samples of gas and make other observations that must go with it, and the expense of shipping all materials such a distance, the experiments would probably cost us more in a very few years than this land would cost where we already have our plant installed. We can buy the land for \$160,000. There is no other tract of land of such size in this country anywhere within 50 miles of New York or Philadelphia with transportation so available as it is to this tract at anything like that price.

CIVILIAN FORCE AT LAKEHURST.

Mr. ANTHONY. How large a civilian force do you maintain at the Lakehurst Proving Ground?

Gen. FRIES. All told, about 100.

Mr. ANTHONY. What proportion of that is skilled labor and what is unskilled labor?

Gen. FRIES. There are about 15 technical men; about 25 per cent is skilled labor, and the balance is unskilled labor.

Mr. ANTHONY. I believe you are going to place in the record the total number of civilian employees of the Chemical Warfare Service and classify them?

Gen. FRIES. By classifications; yes, sir.

Mr. ANTHONY. And the salaries they receive.

REPAIRS TO ARSENAL.

Mr. ANTHONY. For repairs to arsenals you are asking \$287,000. How does that differ from maintenance of these plants?

Gen. FRIES. That refers to certain special items, particularly: the power plant and its operation.

CHEMICAL WARFARE PLANTS AND SERVICE.

Mr. ANTHONY. For instance, you ask for \$615,000 for chemical warfare plants and service, and now you ask for repairs of arsenals \$287,000. Does this arsenal item refer more particularly to storehouses?

Gen. FRIES. Yes, sir; this refers more particularly to what is known as utilities, such as the grounds and the railroads; we have standard gauge and narrow gauge; and the heating and power plants; the other refers to the chemical plants and items that go with them.

RAILROADS.

Mr. ANTHONY. How much railroad have you in operation?

Gen. FRIES. We have about 21 miles of standard-gauge tracks, 10 miles of narrow-gauge tracks, and 7 miles of industrial tracks.

Mr. ANTHONY. Where are these tracks located?

Gen. FRIES. The main track connects with the Pennsylvania Railroad and it is about a mile to the first of the chemical buildings.

Mr. ANTHONY. At Edgewood?

Gen. FRIES. Edgewood.

Mr. ANTHONY. You say you have 20 miles of broad-gauge road—

Gen. FRIES. Yes, sir; that includes sidings.

Mr. ANTHONY. At Edgewood?

Gen. FRIES. Edgewood.

Mr. ANTHONY. Have you any railroad track at Lakehurst?

Gen. FRIES. We have there a narrow-gauge track running to the proving range; it is a meter-gauge road.

Mr. ANTHONY. How about locomotives?

Gen. FRIES. We operate gasoline locomotives for hauling supplies down to the proving ground.

Mr. ANTHONY. How many locomotives do you operate at Edgewood?

Gen. FRIES. Two standard-gauge locomotives. They are gasoline or electric on the narrow-gauge road.

CHEMICAL WARFARE SCHOOLS—STUDENTS.

Mr. ANTHONY. There is an item here for chemical warfare schools, \$35,000. Where do you maintain schools?

Gen. FRIES. At the Edgewood Arsenal.

Mr. ANTHONY. Is that school for the instruction of the field officers?

Gen. FRIES. Officers of the Chemical Warfare Service and of the Army in general, and such of the Navy or marine officers as may be sent over; we have four marine officers in the present class.

Mr. ANTHONY. How many other officers?

Gen. FRIES. We have 10 chemical warfare officers in this school.

Mr. ANTHONY. None from the line of the Army?

Gen. FRIES. No, sir.

Mr. CRAMTON. What is the object of that school?

Gen. FRIES. To teach them.

Mr. CRAMTON. What?

Gen. FRIES. To teach the composition and use of chemical warfare materials in all phases of the work, defensive and offensive, and especially their use in cooperation with other branches of the service.

Mr. CRAMTON. Why do you need \$35,000 to instruct 14 men?

Gen. FRIES. We are going to run different classes and we are expecting to have a large number of line officers there.

Mr. CRAMTON. About how many?

Gen. FRIES. We are prepared to take care of 100 at a time.

Mr. CRAMTON. You propose to pass the line officers pretty generally through this chemical warfare service school?

Gen. FRIES. We hope to. The present policy of the War Department is apparently not to send them; but we feel that it will change and we have this school to teach the art of chemical warfare to the line officers that have been or will be sent there.

Mr. CRAMTON. Do you think it is necessary to send them there? Why can not a chemical warfare course be added at the other schools where officers are training?

Gen. FRIES. They can not get enough of it; and one reason why this school which was formerly at Lakehurst was moved to Edgewood was because of the plant facilities at Edgewood.

Mr. CRAMTON. How are you going to use that \$35,000?

Gen. FRIES. For administration expenses of the school, \$7,966. We have it separated into four items.

Maj. ATKISSON. In this school which is comparatively new at this time we are building up courses which will cover the real fundamentals of the chemical warfare service. We find that it is necessary to go into careful research and studies of the war and what is going on at the present time in the development, all of which requires the expenditure of money.

Mr. CRAMTON. Now, then, the school is not only just to teach the use of your warfare paraphernalia but also for the study of the chemical warfare problems. You are investigators, in other words?

Maj. ATKISSON. No, sir; our officers will be largely officers of other branches of the service; they are virtually to be trained in chemical warfare; every officer in the service should be a gas officer, should understand the use of these chemicals in the field; and that requires going into the technical uses of them; and in this school we intend to cover that feature.

Gen. FRIES. I think that is what you had in mind.

Mr. CRAMTON. Yes; I see.

Gen. FRIES. This also covers such work as the translation of foreign papers on chemical warfare.

TRANSLATORS.

Mr. CRAMTON. That is a question I wanted to ask a while ago: How many translators you have in your Chemical Warfare Service: we have not heard of translators for some time now.

Maj. ATKISSON. Unfortunately we have very few at the present time; that is one of the things we are short on now.

Mr. CRAMTON. How many have you?

Maj. ATKISSON. We have none at the school.

Gen. FRIES. Only officers.

Mr. ANTHONY. Your officers are doing your translating?

Maj. COOMBS. Practically all chemists can read French and German now.

Maj. ATKISSON. We have no translators except the officers.

Mr. ANTHONY. Any civilian translators?

Maj. ATKISSON. No.

Mr. CRAMTON. That commends your service considerably to me.

CURRENT ADMINISTRATIVE EXPENSES—PUBLICATION.

Mr. ANTHONY. How do you propose to spend your \$7,900—what was that intended for, administration?

Gen. FRIES. Yes, sir; current administration expenses.

Mr. ANTHONY. How do you propose to expend that item?

Maj. ATKISSON. We have in connection with the school a publication called Chemical Warfare.

Gen. FRIES. That item includes the magazine called Chemical Warfare.

Mr. ANTHONY. What does that cost you a year?

Maj. ATKISSON. About \$12,000.

Mr. ANTHONY. Do you get any income from it?

Maj. ATKISSON. No, sir.

Mr. ANTHONY. No advertising?

Maj. ATKISSON. No, sir; it is published for the purpose of disseminating chemical warfare information.

Mr. ANTHONY. That is about the only publication that is carried on by the War Department, then, is it not; is it a general publication does it have a general circulation?

Maj. ATKISSON. Only to people that are really interested in keeping up with it, like our reserve officers, or men that were in Chemical Warfare Service during the war and service schools; it is not printed it is duplicated.

Gen. FRIES. It is multigraphed.

Mr. ANTHONY. And it is costing you \$12,000 a year?

Gen. FRIES. Yes, sir.

Mr. ANTHONY. You only get part of the cost out of this particular item?

Maj. ATKISSON. Yes, sir. Part of the work that is done is in connection with the administration of the arsenal, keeping up forms.

Mr. ANTHONY. How much of it do you take out of this \$7,900?

Maj. ATKISSON. Generally speaking, as I remember, I think it is about fifty-fifty between the two.

Gen. FRIES. About \$6,000. This would come out of the school fund.

Maj. ATKISSON. Yes, sir.

CHEMICAL WARFARE SCHOOLS—NUMBER OF CIVILIAN EMPLOYEES AT SCHOOLS.

Mr. ANTHONY. How many civilian employees do you have in connection with the school?

Maj. ATKISSON. At the present time there are four.

Mr. ANTHONY. What are they, clerks?

Maj. ATKISSON. Clerks and one military administrator.

Mr. ANTHONY. One military administrator?

Maj. ATKISSON. Yes, sir.

Mr. ANTHONY. What are his functions?

Maj. ATKISSON. He is acting at the present time as a supply officer for the school.

Mr. ANTHONY. Can you detail an officer for that purpose?

Maj. ATKISSON. No, sir; we are very, very short of officers in this service.

Gen. FRIES. As I stated, we only have 59 officers now to do all of our work and attend to this school.

Mr. ANTHONY. When the Army commissions the full number authorized they will then allow you your full proportion of 100?

Gen. FRIES. Yes, sir; I think we will get the full 100 as soon as we get them transferred; they all have to be gotten by transfer, and we are acting very cautiously on it.

Mr. ANTHONY. What do you pay this military administrator?

Maj. ATKISSON. \$1,500 a year.

Mr. ANTHONY. What are the other items in the school expenses outside of the administrator?

Maj. ATKISSON. It is a new school; we have a very small library, and we hope to bring that up gradually as the years go by, and it will be of considerable expense in the next fiscal year.

PURCHASE OF SCHOOL SUPPLIES.

Mr. ANTHONY. How much are you asking for the purchase of books?

Gen. FRIES. Equipment, machinery, instruments, and so forth, \$10,000.

Maj. ATKISSON. This technical school has considerable equipment in connection with it.

Mr. ANTHONY. What are the other items?

Maj. ATKISSON. Supplies, incidental expenses, \$7,034.

Mr. ANTHONY. That is stationery and so forth?

Maj. ATKISSON. Yes, sir; and there will be certain expenses in taking the classes to the Lakehurst Proving Ground to observe tests there in connection with the courses.

Gen. FRIES. We expect to take them over there so as to show them a large-scale operation once.

Maj. ATKISSON. I fear if we try to carry out the training policy that that will restrict us.

Mr. ANTHONY. It will take that much to start, you think?

Maj. ATKISSON. Yes, sir.

Mr. SLEMP. Do you go into the study of chemistry?

Gen. FRIES. We teach only that regarding the composition of different gases.

Maj. ATKISSON. We take the standard gases and give the student a fundamental knowledge of gases from the characteristics and properties point of view, but we do not go into the chemistry of it.

Mr. SLEMP. Are there any universities in the United States that include in their course on applied chemistry anything relating to the development of chemical warfare?

Maj. ATKISSON. Not at the present time.

TREATISES ON CHEMICAL WARFARE.

Mr. SLEMP. Does not the Massachusetts Institute of Technology or the Stevens Institute or some of these larger universities that have research organizations go into this at all as a matter of science and knowledge?

Gen. FRIES. One difficulty with that is that there is not enough literature yet printed on chemical warfare for those people to really start a course in chemical warfare; and that is one of the things: the school is working on and that we are working on in Washington. We want to get the chemical warfare data written up; it is so much that the literature must, of necessity, be very brief.

Mr. SLEMP. Then there are no facilities in these institutions in the United States for the development and teaching of those things? I do not look upon the Army as an educational proposition.

Gen. FRIES. No, sir; there is not, except this chemical-warfare school.

Maj. ATKISSON. We do not go into the chemistry of it, but its application in the field.

Mr. ANTHONY. You go into its application?

Maj. ATKISSON. We go into its application.

Gen. FRIES. And we teach the men its physical properties; we take it in the shell or canister and show them how it changes when loosened in the field, and its effect on men and animals.

FIELD DEPOTS.

Mr. ANTHONY. General, you are asking for \$150,000 for training; you are also asking for \$100,000 for field depots; does that mean that you are going to use \$100,000 to establish field depots in these various corps areas?

Gen. FRIES. No, sir; that covers all the work—personnel and everything else connected with the maintenance of the chemical warfare part of those depots that are established by the Army throughout the country, whether in corps areas or otherwise.

Mr. ANTHONY. That does not mean that you are going to construct buildings out of that?

Gen. FRIES. No, sir.

Mr. ANTHONY. This expense is necessary to take care of the materials in those depots.

Gen. FRIES. Yes, sir; we have got large stores of materials, some still at Schenectady and other places, and this will cover the expense of caring for it and storing it wherever it may be decided that that material should be stored outside of what we will have at Edgewood; Edgewood is our main storage place and these others are connected with the Army.

Mr. ANTHONY. General, you have developed the Chemical Warfare Service along the line of using chemicals principally by projection by means of artillery fire, have you not?

Gen. FRIES. No, sir; artillery in the future will probably use less than 50 per cent of the gas that will be used; I figure that this cloud gas——

Mr. ANTHONY. That is carried by the winds?

Gen. FRIES. Yes, sir; will care for a tremendous quantity, because the efficiency of your artillery shell is less than 10 per cent at the best compared with 50 per cent or more for other methods.

PROPOSED USE OF POISON GASES IN WARFARE.

Mr. SLEMP. General, does your proposition of the development of the use of gases in warfare take into consideration any attack on the civilian population as well as upon military forces?

Gen. FRIES. Not at all, not at all; and it is no more dangerous to the civilian population than artillery.

Mr. SLEMP. Then you would not be developing gases with any idea in mind such as was expressed the other day to go to a city, say, like New York and put everybody to sleep, or make them all cry, or put them out of business?

Gen. FRIES. We have nothing of that kind in mind. Of course, if a barbarous enemy wanted to adopt such tactics he might try to use gas on a city; but we are not working on that line at all.

Mr. SLEMP. Was there not quite a lot of objection in the world to the use of gases at all in the war?

Gen. FRIES. There was.

CASUALTIES FROM GAS IN LATE WAR.

Mr. SLEMP. And did not Germany shock, you might say, the moral sense of the world when she began to use gas?

Gen. FRIES. Yes, sir. There were two reasons for that. In the first place, she agreed not to use it and broke her word. In the second place the first gas to be used was used against absolutely unprotected troops who knew nothing about it, so that the death rate there was probably 35 per cent of everybody that was gassed, because they had no protection. Now, that death rate fell from that time down until it reached the low point where just barely 2 per cent of the men that got gassed died; and of those who were wounded—and that was pretty nearly one-third of our casualties in the war—of those wounded only about 2,600 had any disability when they were discharged from the Army.

In other words only about 4 per cent had any disability at all as against practically 12 per cent for bullets and high explosives with an additional 3½ per cent of soldiers in the hospitals from other causes. Thus the death rate was about one-twelfth what it was from bullets and high explosives. This low death rate comes about because the men knew how to protect themselves. Protection could not prevent the casualties; they remained high and the men were put out of action from but two to four months. And another thing, the recent statistics of the Surgeon General's office show that there is apparently no tuberculosis caused by gas—in fact, the statistics of this last year are very interesting; tuberculosis rates in gas cases in France in 1918 and 1919 was only 2.45 per thousand, but in 1918 among all the men in France wounded and well it was 3.1 per thousand; and in 1919 that went up to 4.3 per thousand.

Mr. SLEMP. Did not the war itself rather change the attitude that had theretofore been held in regard to the use of gas until it was felt that that was a perfectly justifiable element of warfare?

Gen. FRIES. Yes, sir.

Mr. SLEMP. As justifiable as any other form or method of warfare is not that right?

Gen. FRIES. Absolutely; I think we can look upon it as a logical development that would have come sooner or later; also it is here to stay because no method of fighting that is efficient has ever been abandoned until something more efficient has been found.

Mr. SLEMP. And it is your view that gas will be used in both defensive and offensive operations on a very large scale in the future?

Gen. FRIES. Yes, sir; and I think it gives to the most technical and most ingenious nation a big advantage. We believe we are the most technical and most ingenious nation, and so long as we can keep that lead we hold an advantage.

Mr. SLEMP. This gas is not to be used in attacks on the civilian population?

Gen. FRIES. I think that is a most barbarous practice; we are not considering that at all; and so far as the civilians at the front are concerned they will know perfectly well that our gas will reach back maybe 7 miles; it may get to be 10; and they will simply have to stay back of that distance; and if it is used in artillery it does not spread much farther or only a little bit farther than high explosives. High explosives are just as dangerous to civilians; the long-range gun that shelled Paris on Good Friday killed nearly 100 people.

Mr. CRAMTON. But in modern warfare the civilian population is kept out of the country for a distance of from 7 to 10 miles anyway.

Gen. FRIES. They must stay out for every reason.

Mr. CRAMTON. Not only on account of accident but for other reasons?

Gen. FRIES. Yes, sir. I do not think that gas has any more danger for the civilian population than any other method of warfare.

SUPPLEMENTAL ESTIMATES—MECHANICAL ASSISTANTS, CONTRACT PROVISIONS.

Mr. ANTHONY. Are there any other facts you want to present in connection with your proposition?

Gen. FRIES. I would like to submit these two items as arguments. One is for technical employees in the Washington office and

the other is in regard to the making of contracts; that is, where the contract is not to be performed within 60 days and is in excess of \$500 in amount, such contracts shall be reduced to writing and signed by the contracting parties with their names at the end thereof. In all other cases contracts shall be prepared under such regulations as may be prescribed by the chief, Chemical Warfare Service. That is in line with authority possessed by other departments; but it has been necessary in each case for the Chemical Warfare Service to get specific authorization which means a formal contract with all forms to be sent to the department.

Mr. ANTHONY. Of course, any legislation whatsoever is subject to a point of order on this bill, but you may put it in the record and we will see what can be done.

(The statement submitted follows:)

CHEMICAL WARFARE SECTION.

The services of skilled mechanical engineers, draftsmen, and such other services as the Secretary of War may deem necessary, may be employed in the office of the Chief, Chemical Warfare Service, to carry into effect the appropriations for said service, to be paid from such appropriation, in addition to the foregoing employees appropriated for in that office: *Provided*, That the entire expenditure for this purpose for the fiscal year 1922 shall not exceed \$35,000, and the Secretary of War shall each year in the annual estimates report to Congress the number of persons so employed, their duties, and the amount paid to each.

CHEMICAL WARFARE SERVICE.

Hereafter whenever contracts which are not to be performed within 60 days are made on behalf of the Government by the Chief, Chemical Warfare Service, or by officers under him authorized to make them, and are in excess of \$500 in amount, such contracts shall be reduced to writing and signed by the contracting parties with their names at the end thereof. In all other cases contracts shall be prepared under such regulations as may be prescribed by the Chief, Chemical Warfare Service.

CHANGE OF LANGUAGE.

Mr. ANTHONY. Now, I just want to go over briefly with you another paragraph in the bill. You have a lot of new language in here. Why could you not get along with the old language in the appropriations——

Gen. FRIES. I think we could.

Mr. ANTHONY. With these changes suggested by the Chemical Warfare Service?

Gen. FRIES. Well, in going over it in connection with all the other departments it appeared that we would be more in line with what was apparently the fixed policy of the departments and Congress if we went a little more into the detailed statement of the items that would be covered. There is, I think, one statement in here, a proviso in regard to the replacement of funds. For instance, we are called upon to furnish chlorine to the Army or Navy, or other Government place. Under this provision that money would come back and we could manufacture chlorine to take its place. As it is now, although we are called upon to furnish this chlorine out of our funds, we can not replace it. I think, otherwise, the old language could stand.

Mr. ANTHONY. That would really create a revolving fund?

Gen. FRIES. It can be limited to one year, or two years, just as Congress wanted to put it.

Mr. ANTHONY. As a rule it is against the policy of Congress in granting appropriations to put such provisions in.

Mr. CRAMTON. You want it to replace the same particular material?

Gen. FRIES. Yes.

Mr. CRAMTON. But your amendment is broader than that; it would let you sell one material and procure another.

Gen. FRIES. Well, we had not intended it that way.

Maj. COOMBS. The other bureaus have the language just in those words.

Gen. FRIES. We just copied that language from one of the other bills passed heretofore.

Mr. CRAMTON. If your language was changed so that it read "shall be available to replace such supplies," it would be better.

Maj. COOMBS. There is no objection to that.

Mr. CRAMTON. I think that would be in line with what you ask.

Gen. FRIES. That would be entirely satisfactory.

TRAVELING EXPENSES.

Mr. ANTHONY. You are asking an item for mileage for traveling expenses for officers and employees ordered to attend meetings of scientific or technical societies or associations, such payments not to exceed the sum of \$5,000 during the fiscal year. Do any other departments of the Government have that authority?

Maj. COOMBS. Yes; the Ordnance Department and the Engineer Department have asked an authorization for the expenses of officers and men traveling on work of those services.

Gen. FRIES. This is very important. We feel that in this particular case we can get more information for the money perhaps than in any other way. The American Chemical Society has two great meetings every year; last year they had one in St. Louis and another in Chicago. Now, by sending half a dozen officers to those sessions to attend those meetings we get more information in the same length of time and for the same money from the facts that are brought out in the various subdivision hearings than in any other way. The War Department ruled that we could not, under the law, order officers on that duty, and without this authority, we would lose that chance to get information really for nothing.

For instance, some very valuable information came to us in St. Louis from a paper which was read there. We probably would not have gotten onto it because no one was interested in it from our point of view—we are looking at it from the chemical warfare point of view and they are looking at it from the purely commercial point of view.

Mr. ANTHONY. I think the sum of \$5,000 rather large for the purpose of paying mileage and traveling expenses. Allowing \$1,000 each officer attending such meetings would allow you to send 10 officers. You think it is necessary for part of their general instruction?

Gen. FRIES. And for the information we get; not so much instruction of our men, but the information they get. The men attending those conferences look at the matter from a purely scientific point of view; and if we do not have men there we lose much valuable information.

Mr. ANTHONY. How about the language "for mileage of officers traveling on duty in connection with the chemical warfare work;" is not that duplication of the general mileage appropriation for officers?

Gen. FRIES. For instance, the question came up here earlier about sending officers to get information in Washington—we have to send officers out a great many times on special trips just as we would to these associations.

Mr. ANTHONY. Yes.

Gen. FRIES. And that is not a change of station, or movement of troops in general, but it is purely and absolutely an investigational proposition.

Mr. ANTHONY. But if every bureau of the War Department had the right to order its officers on trips with pay for mileage it would——

Gen. FRIES. The Engineers, for instance, have that language.

Mr. ANTHONY. Do they still have it?

Maj. COOMBS. Yes, sir.

Gen. FRIES. Yes, sir.

Col. SMITH. I would like to say the Chief of Finance has heretofore indicated to the committee that such a provision is, in his opinion, undesirable. You have included in the general provision for mileage transportation, the mileage for officers carried in this bill since 1848; and gradually several services have provisions in their own appropriations; for example, the Air Service, since the beginning of the World War has included a provision for traveling expenses and other services, for mileage or, in lieu thereof, traveling expenses.

The Engineer school has carried an item for about 20 years; that is, the appropriation for the Engineer school has carried an item for traveling expense in lieu of mileage since about March 2, 1901; and there is a provision in the appropriation arming, equipping, and training the National Guard—the Chief of Finance thinks these could well be combined and carried in the general mileage appropriation for officers.

Gen. FRIES. Mr. Chairman, there is another entirely different point of view on this question; that is, the expense is incurred as a part of a job. For instance, we will say that we find that up in New York City, or in Chicago, there is a certain mass of information which some officer who is on this work can get and we send him there as part of that project. We pay his expense out of the project just exactly as we pay the civilian who is working on that to go and get that specific information; it is a part of the project; it is not mileage of the Army; it is incurred in research work or investigation, and we pay it from these appropriations; and our efficiency in getting that particular job done, or doing that manufacturing piece of work, entails that expense, and it is charged up against it; it is not ordinary travel in the Army at all, it is part of the project, and it should be looked at in that way.

Mr. ANTHONY. Very well; we will give it ample consideration. Have you anything further on chemical warfare, Gen. Fries?

Gen. FRIES. No.

Mr. ANTHONY. Then we will take up ordnance.

FRIDAY, JANUARY 14, 1921.

**STATEMENT OF D. B. BRADNER, CHIEF CHEMICAL RESEARCH
AND DEVELOPMENT DIVISION, CHEMICAL WARFARE
SERVICE.**

Mr. BRADNER. Mr. Chairman: The Chemical Warfare Service has discovered a liquid, approximately three drops of which, when applied to any part of the skin, will cause a man's death. Much smaller amounts than this, or even vapors from the liquid, cause very severe slow-healing burns.

The experience of the World War proved that it is possible for an aeroplane to fly within 100 feet of enemy troops and machine-gun them with practical impunity. The opinion of men well informed on aerial warfare is that the only defense against aeroplanes is attack by aeroplanes.

If, instead of carrying machine guns, attacking planes were equipped to carry a tank of this liquid for discharge from nozzles similar to the ordinary street sprinkler, so that it would fall like rain, killing everything in its path; then you would have a weapon which would absolutely destroy troops, noncombatants, or cities, unless they were protected by a superior air navy.

One plane carrying two tons of the liquid could cover an area 100 feet wide by 7 miles long in one trip and could deposit enough material to kill every man in that area by action on his skin. If men were not protected by gas masks, which would be the case if the attack were made on a city, the fatal area would be several times as great.

It is well to mention here that it is not only possible, but highly probable, that an enemy, if he had control of the air and so was free from the fear of retaliation, would threaten to use this weapon to compel the evacuation of cities, munition works, etc.; and if such evacuation did not take place, the position would undoubtedly be attacked.

The only limit to the quantity of this liquid which could be manufactured is the amount of available electric power, as nearly every nation has practically an unlimited supply of the necessary raw materials. It would be entirely possible for this country to manufacture several thousand tons per day, provided the necessary plants had been built.

There is a possibility that a protective clothing can be developed which will entirely cover the wearer and be impervious to this liquid, still allowing water vapor to pass through. Work along this line is being pushed by this service, but the problem is an extremely difficult one and it is probable that several years will be required to develop such a material, if it is possible to do so at all.

It is probable that cities can be protected by chemical means, but this, also, will require time for development.

The most logical defense is an air force more powerful than any possessed by any other power. At the present time, if our country were attacked by an enemy with a superior air force, our army would be annihilated for it could do nothing whatever to defend itself. During the Argonne offensive in the past war, the first American Army of a million and a quarter men occupied an area approximately 40 kilometers long by 20 kilometers wide.

Germany had had 4,000 tons of this material and 300 or 400 planes equipped in this way for its distribution, the entire first army would have been annihilated in 10 to 12 hours.

In closing, it is desired to emphasize the importance of scientific research, as compared with a large army, as the more effective and less expensive means of protecting our country. The Chemical Warfare Service this year is asking for less than 1 per cent of the total Army appropriation. During the past war, gas produced over 30 per cent of our casualties; in the future, the percentage will be far higher. New methods of defense will be devised to meet this particular new development; but if scientific research on military problems is not continued on an efficient basis, another development will be made and an enemy will use it against us before we have worked out a defense.

SATURDAY, JANUARY 15, 1921.

NATIONAL GUARD.

STATEMENT OF MAJ. GEN. JESSE McI. CARTER, CHIEF MILITIA BUREAU.

Mr. ANTHONY. Gen. Carter, I believe you are Chief of the Militia Bureau.

Gen. CARTER. At present; yes, sir.

Mr. ANTHONY. We will take up this morning the appropriations for the National Guard which come under your jurisdiction.

Gen. CARTER. Mr. Chairman, with your permission I would like to make a statement as to the basis on which we prepared these estimates and then have you hear Col. Wilson, who is financial and property officer of the bureau, with respect to the details which make up the various items.

Mr. ANTHONY. All right, sir. I would like to ask a general question first.

You are asking for \$34,808,000 for the next fiscal year for the National Guard. There was appropriated during the current fiscal year \$20,000,000 for that purpose. Can you tell us how much of that \$20,000,000 has been expended so far?

Gen. CARTER. No; we are unable to arrive at a correct statement because the law provides that all issues that are made from surplus property of the Army shall not be charged against the National Guard appropriations. Now, it has been impossible for the Army supply officers up to the present time to tell us just what property was surplus and what we have to pay for. We are endeavoring to get a statement of that.

Gen. LORD. The amount allotted to date is \$4,451,611.29.

Mr. ANTHONY. Then the probabilities are that you will not use that whole sum?

Gen. CARTER. I think we will use it all. We are exercising great economy now to avoid creating a deficiency.

GENERAL STATEMENT.

Mr. ANTHONY. For how large a National Guard force is that \$34,808,000 based upon?

Gen. CARTER. I will explain that if you will let me, Mr. Anthony, in this general statement.

Mr. ANTHONY. Go ahead.

Gen. CARTER. The act of June 3, 1916, as amended requires that the minimum of the National Guard organization in the various States shall be 200 officers and men per Senator and Congressman for the first fiscal year and shall be increased each year thereafter in the proportion of not less than 50 per cent. There then should have been on June 30, 1920, 300 men per Senator and Congressman and the additional men authorized for the District of Columbia, Port Rico, Hawaii, and the Canal Zone, the total number of men we should have at the end of this fiscal year, according to law then, being 178,000, roughly speaking.

Our estimate last year was based on carrying that number of men through the year.

Subsequently your committee gave us enough, as we estimated, to carry through approximately 100,000 men.

At the beginning of the fiscal year we had about 48,000 after deducting a number who had been found to be deficient for one reason or another, and from which we had withdrawn recognition. Now we figured that by carefully economizing this sum and by not going too fast in the early part of the fiscal year, we could about June 30, 1920, have the 178,000 men and not exceed the appropriation that you had made.

There is a clause in the act which requires that the Secretary of War shall submit estimates annually for the support of the National Guard and that no funds in excess of those appropriated by Congress shall be expended on the National Guard, so we are not authorized to make a deficit or to create a National Guard beyond what we can support out of the appropriations made by Congress.

When I submitted the estimates we are now considering I asked the Secretary of War on what we should base the estimates and he directed that we base them on the number required by the national defense act, that is, 450 men per Senator and Congressman, approximately a total of 240,000.

I submitted the estimates for that number of men. In making these estimates we took into consideration the fact that we were utilizing the agencies of the Army for the transaction of a great deal of business and that we could in that way save considerable money; that we were going to have a certain quantity of property issued to us without charge, generally speaking ordnance equipment, such as guns, howitzers, and rifles.

The estimates were worked over in the Finance Office and in the Office of the Secretary of War and as submitted to you were decidedly reduced. Instead of providing for the support of 240,000 men we have estimated that they will carry through the year approximately 125,000 men.

NUMBER OF MEN IN NATIONAL GUARD.

Mr. ANTHONY. How many men are now in the National Guard?

Gen. CARTER. On the 1st of January there were a little over 70,000 and since that time we have had a number of units reorganized so now there are approximately 80,000 men in the National Guard. With the present rate of increase there will be in the National Guard

on June 30 about 100,000 men. If all the troops allotted to and accepted by the States were formed there would be 183,000. Now if we carry out the scheme——

Mr. SLEMP (interposing). General, did you clarify the amount of money which you had on hand this year in its use for the National Guard? Have you gotten through with that statement?

Gen. CARTER. No; I told Mr. Anthony that I thought that by careful economy we could get through with just the amount we have on hand. We will have no surplus to turn in.

Mr. SLEMP. That is to say, with the appropriation last year, you will be able to carry how many men in the National Guard?

Gen. CARTER. We will be able to have by June 30 100,000 men or slightly more. Now the number of men we can take would depend on how we spend this money. For instance, we are authorized to send officers and enlisted men to service schools. While there they receive their full pay. We also pay traveling expenses. That is very valuable experience and a good many officers and enlisted men would like to attend these schools, but the number that we can send depends upon the appropriation available.

Mr. SLEMP. What was the appropriation last year—about \$28,000,000?

Gen. CARTER. Yes; that was about it. There was an appropriation of \$20,000,000 and an extra \$8,000,000.

Mr. ANTHONY. How did you get the extra eight millions?

Gen. CARTER. It was for purchase of supplies, as I recollect it.

Mr. SLEMP. You had about 28 millions that you could conduct your entire National Guard business on. That takes care of about 100,000 men, as I understand it.

Gen. CARTER. Yes.

Mr. SLEMP. The total number of men that you would expect next year, as I understand you, is 125,000.

Gen. CARTER. No sir; we expect and I think we could get the full number required in the section that prescribes the minimum number that should be formed, but the appropriation carried in the estimate would support but 125,000.

Mr. SLEMP. You mean the 76 millions that you ask for would only support 125,000 men?

Gen. CARTER. Yes, sir.

Mr. ANTHONY. Does not that depend, General, on how you propose to organize the National Guard? Could you not organize the National Guard on an economical basis that would cut out certain expensive organizations and equipment, the organization of a maximum number of the Guard in certain organizations that are permitted you and use a larger number of men?

Gen. CARTER. No, I think not, Mr. Anthony.

Mr. ANTHONY. Right there, instead of providing aeroplane units, signal units, medical corps units and transportation units, and units that are only really necessary in war time, could you not get along without the use of so much money?

Gen. CARTER. The expensive item in those units is the equipment.

Mr. ANTHONY. Can you not get along without organizing those units? I know your regulations now provide that you shall organize such units in the National Guard, but could you not get along without that?

Gen. CARTER. But the law requires that the National Guard shall be organized the same as is the Regular Army.

Mr. ANTHONY. Can you not just organize such units as can be most economically organized in the various States to give you the maximum number of men instead of expending money for these apparently expensive and unnecessary organizations in time of peace?

Gen. CARTER. Not unless you change the law. The law requires that the National Guard shall be so organized as to secure a force which when combined shall form complete higher tactical units, and our expense in organizing an infantry unit is the same as in organizing a battery of artillery, as the bulk of the expense of a battery of artillery is for guns and equipment and those are issued free without charge against the appropriation. The items of expense are largely in the purchase of uniforms and shoes, armory drill, in field training of men, and it costs just as much for field training of infantry as for the training of artillery.

Mr. ANTHONY. You get away from my question. You said you could support 125,000 men on the \$76,000,000.

Gen. CARTER. I said it would support.

Mr. ANTHONY. You could support 125,000 men on the estimate you submit for the next year. Now, could you not maintain 100,000 infantry in the National Guard a good deal cheaper: you can maintain 100,000 National Guardsmen made up of all the organizations that comprise the Regular Army?

Gen. CARTER. Possibly. The only additional item of expense would be in those units which would require animals and have to have forage.

Mr. ANTHONY. But is it not a very expensive proposition to organize any units in the National Guard that require animals and forage and caretakers and equipment of that kind?

Gen. CARTER. Not so great as the expense of the Regular Army because we only furnish them with about one-third of the items.

Mr. ANTHONY. But it is expensive.

Gen. CARTER. It is an added expense, but we require those units in any higher tactical force.

Mr. ANTHONY. I know you do, but we want to get down to the basis of economical organization of the National Guard and we are going to organize a National Guard with all the units of the Regular Army and furnish them with all the animals required in time of war—

Gen. CARTER (interposing). We do not do that.

Mr. ANTHONY. But you supply them with animals and trucks and all that business.

Gen. CARTER. The motor trucks do not now cost the Government any money.

Mr. ANTHONY. But they did cost the Government money and they cost the Government money to maintain them.

Gen. CARTER. No; the States will maintain them.

Mr. ANTHONY. That money comes out of the taxpayers. Has any effort been made in the War Department to work out an economical organization of the National Guard?

Gen. CARTER. It has been our constant study to keep the National Guard down in the Militia Bureau, but you will

stand the law requires the National Guard shall be organized the same as the Regular Army is organized and the units organized shall be capable of organization into higher tactical units.

Mr. ANTHONY. Does the law say it shall be organized into all the units of the Regular Army.

Gen. CARTER. No, sir; but it says—I should like to read you that clause.

Mr. ANTHONY. All right, I would like to have that in there.

Gen. CARTER (reading):

SEC. 60. *Organization of National Guard Units.*—Except as otherwise specifically provided herein, the organizations of the National Guard, including the composition of all units thereof, shall be the same as that which is or may hereafter be prescribed for the Regular Army, subject in time of peace to such general exceptions as may be authorized by the Secretary of War.

Mr. ANTHONY. Right there, can not the Secretary of War authorize exceptions which will save these enormous expenditures of money in time of peace for equipment that the Guard would only utilize in time of war.

Gen. CARTER. He could, probably, except for the following clause:

And the President may prescribe the particular unit or units, as to branch or arm of service, to be maintained in each State, Territory, or in the District of Columbia in order to secure a force which, when combined, shall form complete higher tactical units.

Mr. ANTHONY. It says the President may prescribe. There is nothing mandatory in that as I read it, at all.

Mr. SLEMP. That is right.

Mr. ANTHONY. And the thing that impresses me is that in making up your National Guard estimates you are trying to make a second Regular Army out of the National Guard.

Gen. CARTER. No; we have not attempted to do that. We have merely tried to comply with the law so as to get units that could be combined to form complete higher tactical units.

Mr. ANTHONY. It occurs to me you could organize a National Guard and do away with a lot of the expense that is necessary in the regular service; that is, you could organize more economical units in the National Guard than you are doing. In other words, in some of the States where they are perfectly willing to establish and organize infantry units, why not let them go ahead and organize infantry units instead of saying that they shall organize sanitary units, that they shall organize aeroplane units, that they shall organize medical units and transportation units and things of that kind.

Gen. CARTER. I can explain that to you. When I came to the Militia Bureau in 1916 there was in existence in the National Guard, which was then being transformed, a large quantity of infantry and not much else. It was assumed by the Militia Bureau that Congress in passing this law was endeavoring to get into the National Guard troops which when called into Federal service could be combined in higher tactical units and used anywhere, so we discouraged the further organization of infantry units until we could organize some of the other units. You can not have infantry go into the field until you have the sanitary units, for instance, to go with them.

Mr. ANTHONY. Cannot those units be supplied in time of war easier than you can raise a competent infantry army.

Gen. CARTER. I do not think so

Mr. ANTHONY. I think those units of the Regular Army must be expanded beyond the necessity of the National Guard.

Mr. Sisson. Mr. Chairman, in order to get our views here, I agree with you.

Mr. ANTHONY. What I am trying to get at is this, that the way the Guard has been organized and the way they propose to organize it is the most expensive possible way to maintain the National Guard and what we want to work out is some more reasonable and less expensive organization of the Guard.

Gen. CARTER. The National Guard can be organized, solely of infantry, but would be of no value to the Federal Government.

Mr. ANTHONY. I disagree with you on that, but go ahead.

Mr. Sisson. I think almost everybody would disagree with you on that.

Mr. SLEMP. General, a while ago I was asking you about your method of taking care of 100,000 men in the National Guard by an expenditure of \$28,000,000 which, under the law, you can not exceed. Now you say this year you can take care of 125,000 men by an expenditure of \$76,000,000. Now why do you make that distinction taking care of 100,000 men on an expenditure of \$28,000,000 and requiring \$76,000,000 to take care of 125,000 men? Explain the difference in your attitude toward the National Guard units the next fiscal year and the present fiscal year.

Gen. CARTER. There has not been any change in our attitude. I tried to explain that in my first statement.

Mr. SLEMP. I did not get it.

Mr. ANTHONY. When I stated there were \$34,808,000 asked for support of the National Guard in this bill I should have said that \$34,808,000 was asked for the arming, equipping, and training of the Guard—that one item.

Mr. Sisson. This bill last year carried \$20,000,000.

Mr. ANTHONY. For this one item.

Mr. SLEMP. \$20,000,000 as a whole.

Mr. Sisson. Where is the other item?

Mr. ANTHONY. Following immediately after it. The total estimates for this year for the National Guard are \$34,808,000.

Gen. CARTER. Yes, sir.

Mr. ANTHONY. And the total appropriations last year were \$28,000,000.

Mr. Sisson. That is right.

Mr. SLEMP. Now I would like to get a clear visualization of your statement.

Gen. CARTER. We began this year with 50,000 men. We have recruited it until now we have 80,000 men and by the end of the year it will reach 100,000 men. We have not carried 100,000 men during the whole year.

There is another complication. The law requires such articles as are surplus in the Regular Army to be issued to the National Guard without being charged against the appropriation. Those items are growing less day by day. At the present time they constitute heavier ordnance, rifles, etc., and we have to buy nearly everything else. For a while nearly everything we got was issued as surplus without being charged against the appropriation, so the appropriation was not so heavily drawn on for that purpose.

Mr. ANTHONY. General, does not that depend on how the War Department interprets the word "surplus"?

Gen. CARTER. It does, of course, but the Militia Bureau has nothing to do with the interpretation.

Mr. ANTHONY. So if the War Department wishes to cut the National Guard off from the use of any of this material, it declines to call that surplus?

Gen. CARTER. They have issued to us where they knew they had a surplus, but we have had to depend on them to know whether it would be a free issue or we would have to reimburse them.

MATERIAL DECLARED SURPLUS FROM WAR DEPARTMENT.

Mr. ANTHONY. Let us see what has been declared surplus for the use of the National Guard. They have declared surplus sufficient Field Artillery.

Gen. CARTER. Yes.

Mr. ANTHONY. They have declared surplus sufficient service arms, rifles.

Gen. CARTER. Yes.

Mr. ANTHONY. They have declared surplus sufficient horses.

Gen. CARTER. No; we buy them.

Mr. ANTHONY. Now we find there are 38,000 horses and mules in the corrals that are just eating their heads off and not being utilized in the Regular Army.

Gen. CARTER. I have not anything to do with that, Mr. Anthony. That matter is regulated by the supply department of the Army.

Mr. ANTHONY. It means they have declined to declare those horses surplus.

Gen. CARTER. I suppose they have. They tell us they have not this surplus for free issue, so we have to buy them where we need them.

Mr. ANTHONY. Congress intended where we had any surplus as that that was not being used in the Regular Army that they should be issued to the National Guard.

Gen. CARTER. There are some items that come in this year's appropriation that were not carried in the last appropriation. For instance, in the act that came along on June 4, 1920, it is provided that not to exceed 500 National Guard officers shall be assigned to duty in the Army, and we have asked in the estimate some two million dollars for the pay and expenses of those officers. Col. Wilson will explain to you how we arrived at all of these minor items.

As I said before, we have figured the thing on as economical a basis as we could run it. We have not asked for anything fancy. We have understood all along that the necessity for the organization of the Guard in the higher units arose from the fact that when the Government needed it it would need to use it in these higher units and we have tried to form those units as we went along (the Infantry division, for instance), rather than to wait for some part of it until we had all the Infantry organized, and then we would have had, as we always have had in war, to extemporize a large part of the force to be used.

Mr. ANTHONY. You have organized the National Guard so that in time of emergency you can use it as a force by itself?

Gen. CARTER. Yes.

Mr. ANTHONY. And not amalgamate it or function it with the Regular Army?

Gen. CARTER. No, only in so far as divisions would function with each other.

Mr. ANTHONY. Would it not be more economical to organize it as a force that would consolidate and act with the Regular Army instead of organizing and equipping it so it would be used as an independent force.

Gen. CARTER. As a result of the study that was made under the act of June 4, 1920, which was required by that law.

Mr. ANTHONY. You have not yet cited anything in the law that makes it mandatory that the National Guard shall be organized in such a way. It says "as may be authorized by the Secretary of War." And, "the President may prescribe."

Gen. CARTER. It says it shall be combined into these higher tactical units.

COST PER MAN.

Mr. Sisson. What money do you get that is not appropriated by Congress? How much do you get from the States?

Gen. CARTER. None at all for the use of the Militia Bureau. You will understand, Mr. Sisson, the National Guard is a dual force. It belongs to the State until called upon for use by the Federal Government.

Mr. Sisson. Is it wholly supported by the Federal Government?

Gen. CARTER. Not at all. The armories are built by the States.

Mr. Sisson. You have 80,000 men now?

Gen. CARTER. Approximately that.

Mr. Sisson. You expect to have at the end of the next fiscal year if you get this money, 125,000 men?

Gen. CARTER. No; we could have more than that. There is enough money carried in this bill to carry through the year 125,000 men.

Mr. Sisson. That is what I mean. You would carry through the year 125,000 men.

Gen. CARTER. At the end of the fiscal year if we began with less than 125,000 we could have more than 125,000.

Mr. Sisson. You would average during the next fiscal year 125,000 men?

Gen. CARTER. That is right.

Mr. Sisson. Now \$600 apiece and 125,000 men would be \$75,000,000. so it is costing us out of the Federal Treasury approximately \$600 per man in the National Guard and you must add to that whatever the States give for their support. We get then 125,000 men. I don't know what they pay, but if it is \$100 or \$200 or \$250 a man from the States our National Guard is costing us \$800 a man. Now how many days do they drill?

Gen. CARTER. They are required to have 48 drill periods of one hour and a half each and to be in field training for a minimum of 15 days each year.

Mr. Sisson. I do not know what they get from the States, but they would get then something like between \$15 and \$20 a day for every day they drilled on those 48 days. Does that mean whole 8-hour days or 2-hour days?

Gen. CARTER. It means about two hours.

Mr. Sisson. That is one-fourth of 48. I am taking it by the day. Now, I am talking about what a man gets by the hour he works. That is, one-fourth of 48 would be 12 days, and then take the full drill days; that makes 27 days. I do not know now what they get from the States, so it is costing the Government and the States something like \$40 a day, if you pay men by the day, for getting a National Guard. That looks like a pretty expensive proposition to me for the time these boys give to it.

Gen. CARTER. I think you have started on a wrong assumption.

Mr. Sisson. Evidently I have.

Gen. CARTER. When we took the National Guard into the service in 1917, we took all the equipment whether it belonged to the States or to the Federal Government and brought it into the service. They have nothing to start with in the States and whenever they organize a unit we have to equip it, and the bulk of this expense goes in equipment, clothing, shoes, everything that is furnished them, and whenever we get a National Guard organized and equipped once that expense will be much less.

Mr. Sisson. In other words, this ceases to be anything like a State Militia. In other words, the constitutional State Militia is utterly eliminated by the reorganization.

Gen. CARTER. No; the State Militia exists.

Mr. Sisson. It is a farce to say you have a State Militia under an organization where the States, for police purposes pure and simple and as a rather auxiliary in time of war, shall have organized all of these units that make it so expensive but for the help of the Federal Government they could not maintain them; so really you are organizing it almost as if you were organizing a second little army or second big army. In other words, you have two armies and two overhead charges, you have two lots of equipment, one for the Army that you call the National Guard and then one for the other Army. In other words, if it continues to grow in the next few years as it has in the last years it will cost as much per man to keep a man in the National Guard as the Army.

Gen. CARTER. No; the cost per man will be reduced because we will not have to furnish equipment. Whenever you get it equipped you will have only the cost of the field training and drill pay.

Mr. Sisson. It will be one of the miracles, but I want to put it down and add to the chapter of miracles performed in the Bible if you ever get it reduced. I have been looking for an item somewhere where you reduced an expense, not only in the Army and the Navy but in every branch of the service where money is paid out of the Treasury.

Mr. ANTHONY. That is what worries me, too, the way they are trying to organize it on such an expensive basis. I am afraid they will lose the friendship of the people.

Gen. CARTER. I would like to take exception to your statement that we are trying to organize it on an expensive basis. We have tried to keep the expenses down.

Mr. ANTHONY. These estimates do not show it.

Mr. Sisson. I do not think you are succeeding.

Mr. SLEMP. You are acting in obedience to a law passed by Congress, Gen. Carter?

Gen. CARTER. Yes, sir.

Mr. SLEMP. Authorizing the organization of the National Guard under certain conditions as brought about in the national defense act.

Gen. CARTER. Yes, sir.

ORGANIZATION OF NATIONAL GUARD UNITS.

Mr. ANTHONY. Let us make that a little straighter. You are acting under a law passed by Congress that authorizes it to be organized in such a way as the Secretary of War by regulations may direct and as the President may direct, and the Secretary of War and the President apparently have chosen to direct it to be organized in this way.

Mr. SLEMP. Exactly. Now when there is a conflict existing between the amount of money that Congress appropriates for the purpose and the directions you receive what do you do?

Gen. CARTER. We have to act in accordance with the money appropriated. I have explained there is a section of this law which requires that at the end of this fiscal year there shall be a minimum number of men in the National Guard in each of the States.

Mr. ANTHONY. Put that in the record right at that point.

Gen. CARTER. This is section 62:

EXCERPTS FROM THE ACT OF JUNE 3, 1916, AS AMENDED BY THE ACT OF JUNE 4, 1920

SEC. 60. ORGANIZATION OF NATIONAL GUARD UNITS.—Except as otherwise specially provided herein, the organization of the National Guard, including the composition of all units thereof, shall be the same as that which is or may hereafter be prescribed for the Regular Army, subject in time of peace to such general exceptions as may be authorized by the Secretary of War. And the President may prescribe the particular unit or units, as to branch or arm of service, to be maintained in each State, Territory, or the District of Columbia in order to secure a force which, when combined, shall form complete higher tactical units. * * *

SEC. 62. NUMBER OF THE NATIONAL GUARD.—The number of enlisted men of the National Guard to be organized under this act within one year from its passage shall be for each State in the proportion of two hundred such men for each Senator and Representative in Congress from such State, and a number to be determined by the President for each Territory and the District of Columbia, and shall be increased each year thereafter in the proportion of not less than fifty per centum until a peace strength of not less than eight hundred enlisted men for each Senator and Representative in Congress shall have been reached: *Provided*, That in States which have but one Representative in Congress such increase shall be at the discretion of the President: *Provided further*, That this shall not be construed to prevent any State, Territory, or the District of Columbia from organizing the full number of men required under this section in less time than is specified in this section, or from maintaining existing organizations if they shall conform to such rules and regulations regarding organization, strength, and armament as the President may prescribe.

SEC. 119. ANNUAL ESTIMATES REQUIRED.—The Secretary of War shall cause to be estimated annually the amount necessary for carrying out the provisions of this act as relates to the militia, and no money shall be expended under the provisions except as shall from time to time be appropriated for carrying them out.

Mr. SLEMP. That is what I want.

Mr. Sisson. General, that still leaves it within the discretion of the Secretary of War and finally within the discretion of the President. Now, we imagine that they largely act upon your recommendations, you having charge of it and having given it much study. Therefore I do not believe that it is fair to put everything on the Secretary of War, because these men having charge of these various depart-

make recommendations as to what they need. Therefore, the organization of the National Guard will certainly not result in any economy, but will result finally in our endeavoring to organize two armies, one called the National Guard and the other called the Regular Army.

Gen. CARTER. As I tried to point out before, the Secretary and the preceding Secretaries who have construed this law have taken this prescription in the latter part of section 60 as the direction to secure a force which when combined shall form complete higher tactical units.

Mr. Sisson. Then that virtually means, except that they do not give much of their time to this, that you have got another little army or a big one, as the case may be.

Gen. CARTER. No; it means that this force shall be so organized that in time of war it can, without having recruiting and training, supplement the Regular Army for Federal military purposes, and that was supposed to be the intent of Congress when they passed that law.

Mr. Sisson. I doubt extremely whether Congress had that in mind.

Mr. ANTHONY. Congress has always thought the Regular Army should be the first line of defense and the National Guard the second line of defense, an auxiliary, but if you organized both for arms on exactly the same basis you will have two first lines of defense, you might say.

Gen. CARTER. It seems to me to be a plain business proposition. If the Federal Government is going to spend money in maintaining troops in a State, it will expect a fair return in military preparedness for the money spent. So we if organize nothing but a police force that the States can use—and that is all they need——

Mr. ANTHONY (interposing). I do not mean by an economical organization of the guard to impair its efficiency in the slightest, but I do maintain that to carry out this view if you do not have money enough to organize a complete secondary army in the National Guard it does suffice to organize a National Guard into those units that will cost the people in this country the least possible amount of money.

Mr. Sisson. And give them the maximum number of men required under the act.

Gen. CARTER. I want to say plainly that if you gentlemen require that only certain units be organized in the National Guard and that it should be run on this economical basis you should so provide in the law. You have provided here that so many horses would be issued to each troop and they should be equipped as the Regular Army.

Mr. ANTHONY. It says "may be."

Gen. CARTER. And if their equipment becomes obsolete it shall be replaced.

Mr. ANTHONY. If Congress does not appropriate the money for it——

Gen. CARTER (interrupting). We can not do it.

Mr. ANTHONY. So we can reach it in that way.

Gen. CARTER. I want to say that I have been endeavoring to carry out the provisions of the law. I have not tried to spend too much money or make the National Guard a fancy force.

Mr. Sisson. On your interpretation of that law have you really carried out the strict letter of the law?

Gen. CARTER. I think I have.

Mr. Sisson. You have not given us the minimum number of men the law required.

Gen. CARTER. I can not get the men. The States recruit the men.

Mr. Sisson. That may be true, but the trouble is you are spending too much money in the equipment of all these units instead of organizing infantry units.

Mr. ANTHONY. You say you can not get the men.

Gen. CARTER. I mean to say that it is not my duty.

Mr. ANTHONY. In your method of specifying that certain kinds of troops only shall be raised in certain States, you have ordered States to raise medical units and sanitary units in time of peace. Now civilians do not like to get into noncombatant units of the National Guard of that kind in time of peace. Why force the State to organize those units when the State is ready and willing to organize a certain number of infantry companies?

Gen. CARTER. I think you are wrong in that, and I will tell you why. You prescribed by law last June that in the reorganization of the National Guard the location of units should continue to be determined by the States and that we could consult the representatives of the State, and we have gone out and consulted with the adjutants general or the representatives of the governors and have made great endeavors to agree what units should be organized in those States, and the States have accepted that organization and there is no dissatisfaction with it.

Mr. ANTHONY. I have based the statement I have made on statements State officials have made to me that the department was insisting on them organizing medical and sanitary units and they do not want them.

Gen. CARTER. They have not told me that, and if you desire information on that point perhaps you had better call some of the officers who went out and held these conferences. I did not do that.

Mr. ANTHONY. Who determines the policy with respect to the National Guard, do you do it as Chief of the Militia Bureau or is that done for you?

Gen. CARTER. It depends on this reorganization of the guard. The regulations are made by this board which is composed 50 per cent of Regular officers and 50 per cent Reserve and National Guard officers, their report being approved by the Secretary of War. Therefore, I have nothing to do with that.

Mr. ANTHONY. Did you have such a board as you specify during the last year?

Gen. CARTER. Yes; and I have transmitted their recommendations to the State officials and we are working on that basis.

Mr. ANTHONY. When did that board act?

Gen. CARTER. It met in June or July and has been working steadily ever since.

Mr. ANTHONY. Now, General, can you put in a statement showing the organized force of the National Guard?

Gen. CARTER. By units?

Mr. ANTHONY. Yes; by organizations.

Mr. SLEMP. And States?

Mr. ANTHONY. And States.

Gen. CARTER. I have here a statement of the number of troops organized in each State on January 1.

Table showing National Guards units on Jan. 18, 1921.

	Infantry.		Cavalry.		Field Artillery.		Coast Artillery Corps, companies.	Engineers, companies.	Signal Corps, companies.	Tanks, companies.	Trains.
	Regiments.	Companies.	Regiments.	Troops.	Regiments.	Batteries.					
Alabama.....	1			1							5 supply companies.
Arizona.....				2		1					
Arkansas.....		1									
California.....	1	4									
Colorado.....	1			2					1		
Connecticut.....				2		1	3				
District of Columbia.....		3									
Florida.....		11									
Georgia.....		8		2							
Hawaii.....		11									
Idaho.....				5							
Illinois.....		15		1		3				1	
Indiana.....		1									
Iowa.....	1	6		7		1					
Kansas.....	1			4		3			1		
Kentucky.....		3		4							
Louisiana.....				1		1					
Maine.....	1						3				
Maryland.....											
Massachusetts.....	2			5	2	4	10	6			
Michigan.....		13		2		1			1		
Minnesota.....	3				1					1	
Mississippi.....		4									
Missouri.....	2			1		5					
Nebraska.....		4									
New Jersey.....	2			7		2					1 hospital company, 1 ambulance company.
New Mexico.....				2							
New York.....	5	4		12	2	4	20	6		1	
North Carolina.....		5		3			1				
North Dakota.....		1									Do.
Ohio.....	2	17		9		1				1	
Oklahoma.....	2					3					
Oregon.....	1						3	1			
Pennsylvania.....	2	40		10		9					Do.
Porto Rico.....	1			1							
Rhode Island.....				2			7				
South Carolina.....		10									
Tennessee.....	1	2		1							3 supply companies, 3 ambulance companies.
Texas.....			6								
Utah.....				4		2					
Vermont.....		7									
Virginia.....	1	2				1					3 supply companies, 3 ambulance companies.
Washington.....	1			1		1				1	
Wisconsin.....		48	1	3		3	(1)	(1)	(1)	1	
Wyoming.....				9	1						
Totals.....	31	280	7	103	5	46	47	13	3	6	15 companies.

1 1 M. P. company; 1 division headquarters troop.

Progress of the National Guard of the United States on January 1, 1921.

During the month of December, the National Guard showed an increase of 232 officers and 3,197 enlisted men, making a total in the United States on January 1, 1921, of 78,192 officers and enlisted men, as shown by the latest monthly returns received in the Militia Bureau.

Federal recognition was extended to the following units during the month:

INFANTRY.		INFANTRY—continued.		CAVALRY.	
	Companies.		Companies.		Troops.
Illinois.....	8	South Carolina.....	1	Ohio.....	2
New Jersey.....	4	Mississippi.....	1	New York.....	1
Missouri.....	3	Massachusetts.....	2	Wisconsin.....	1
Ohio.....	6	New York.....	1	Colorado.....	1
North Carolina.....	3	Wisconsin.....	2	Alabama.....	1
Minnesota.....	3	Maryland.....	1	Louisiana.....	1
California.....	2	Connecticut.....	1		
Virginia.....	2	Indiana.....	1		
Georgia.....	1	Porto Rico.....	1		
Nebraska.....	1				

FIELD ARTILLERY.		COAST ARTILLERY		SIGNAL CORPS.		ENGINEERS.
	Batteries.		CORPS.		Companies.	
Massachusetts..	5		Companies.	New Jersey....	1	Ohio.....
New Jersey....	1	New York....	4	Michigan.....	1	
Missouri.....	1	Connecticut...	1			

MISCELLANEOUS UNITS.

Wisconsin.....	1	Infantry, sanitary detachment.	New York....	1	headquarters company.
Oregon.....		Do.			Field Artillery.
Massachusetts..	1	supply company, Field Artillery.	New York....	1	Field Artillery, sanitary detachment.
New York....		Do.	Pennsylvania..	1	ambulance company.

	Present strength.		Authorized strength.		Present strength in per cent of authorized
	Officers.	Enlisted.	Officers. ¹	Enlisted. ¹	
1. Porto Rico.....	35	1,507	72	1,971	75
2. Rhode Island..	34	795	40	1,121	71
3. Minnesota.....	192	4,013	276	6,269	64
4. Oklahoma.....	120	2,736	176	4,431	62
5. Maine.....	56	1,340	75	2,191	61
6. Utah.....	21	583	42	989	59
7. Oregon.....	66	1,297	87	2,438	54
8. Wyoming.....	27	514	42	987	53
9. Florida.....	33	897	63	1,791	50
10. Pennsylvania..	305	6,985	698	14,286	49
11. New Jersey....	133	2,555	209	5,316	49
12. Wisconsin.....	223	5,168	489	10,833	48
13. Idaho.....	15	289	27	607	48
14. Texas.....	240	7,202	744	15,433	46
15. Tennessee.....	53	1,360	116	2,935	46
16. Missouri.....	98	2,260	215	5,253	43
17. New York.....	458	10,174	1,084	24,574	41
18. Kansas.....	88	1,773	196	4,474	40
19. Washington....	62	1,273	126	3,194	40
20. Iowa.....	79	1,893	193	4,891	39
21. Massachusetts..	199	4,353	509	11,653	37
22. Vermont.....	26	570	57	1,591	36
23. Alabama.....	36	964	103	2,874	34
24. Ohio.....	190	3,935	626	12,498	31
25. Arizona.....	11	270	34	864	31
26. South Carolina.	27	618	70	2,005	31
27. Connecticut....	22	557	81	1,808	31
28. Hawaii.....	29	942	126	3,532	27
29. Colorado.....	47	643	90	2,518	26
30. Maryland.....	49	907	134	3,560	26
31. Virginia.....	62	1,064	164	4,394	25
32. Michigan.....	44	926	154	3,856	24
33. Georgia.....	34	684	134	3,325	21
34. California.....	50	1,051	203	5,278	20
35. Dist. Columbia	7	209	37	1,119	19
36. North Carolina.	31	575	116	3,034	19
37. Kentucky.....	19	409	110	2,895	14
38. Nebraska.....	12	240	68	1,856	13
39. Mississippi.....	11	231	78	2,144	11
40. Illinois.....	43	783	291	7,476	11
41. New Mexico....	6	106	44	1,211	9
42. Louisiana.....	8	119	63	1,668	7
43. Arkansas.....	4	64	80	2,101	3
44. Indiana.....	3	50	155	3,660	1
Other States.....			279	7,249	.
Total.....	3,308	74,884	8,776	208,153	36

¹ The authorized strength is taken from the tables approved by the Secretary of War and issued v : approximate strengths on Oct. 15, 1920. The new Tables of Organization will be issued shortly and : show a slight change in strength of units from the above.

² The State of Maryland relinquished to the State of Delaware 1,000 of her allotment for the year 1921.

(Statement of allotment, National Guard troops, will be furnished the committee.)

Mr. CRAMTON. A moment ago, General, in your discussion with Mr. Sisson you made the statement that when the National Guard is once fully equipped the requests for appropriations for that purpose would cease.

Gen. CARTER. Well, I did not mean to say they would cease.

Mr. CRAMTON. But the expense of the establishment would then not be so heavy. Do you really anticipate that if Congress should grant fully the requests of the department for equipment for the National Guard the time would ever be reached when the department considered the National Guard fully equipped and would cease to ask appropriations for that purpose?

Gen. CARTER. There would always be necessary appropriations for replacements. Articles wear out.

Mr. CRAMTON. Let us leave that out of the question. Beyond that?

Gen. CARTER. Yes; I think so.

Mr. CRAMTON. It is a little material to know what that word "replacements" means. Do you limit the word "replacements" in that connection to simply replacing equipment that has become worn out with new equipment of the same character?

Gen. CARTER. Yes; or equipment that has become obsolete.

EQUIPMENT.

Mr. CRAMTON. That is just the point. Is it not a fact that the military art is such that even if Congress does fully grant your requests from year to year for equipment there will always be such changes in the view of the experts as to what is necessary, and development, as to equipment that there would always continue to be fully as great requests for money for new equipment for the National Guard as Congress could think of granting?

Gen. CARTER. I do not think so, sir.

Mr. CRAMTON. In other words, the policy on which you are starting being not merely that of providing the necessary equipment for training purposes but being rather to equip the National Guard on the same basis as the Regular Army, to give to the National Guard fully every development of military equipment in its latest form, most perfect form, so that they would be equipped to step immediately into a war status, which means that we would never get through equipping the National Guard.

Gen. CARTER. May I make a statement there?

Mr. CRAMTON. Certainly. I am trying to draw out your views and would be glad to have you state them.

Gen. CARTER. You stated that we equipped the National Guard fully with all the latest devices.

Mr. CRAMTON. That I understand is your program.

Gen. CARTER. We supply to the National Guard the Regular Army supplies scheduled for an organization at minimum strength. When we go to war it is necessary, if we are going to function perfectly or very efficiently, to greatly increase the minimum strength of these companies and then we will have to furnish additional equipment, but that will come from the reserve supply of the Army. We do not

keep it in the States because it deteriorates there more rapidly than it does in the Regular Army.

Mr. ANTHONY. I want to supplement what Mr. Cramton said about the oversupply of equipment of the National Guard. An instance was recited to me not long ago that in a certain State where a battery of field artillery was organized and the equipment on the way, when it arrived the officers in charge of the battery were dumbfounded to find that they had 19 carloads of material on the sidetrack for the equipment of that battery, and they stood fairly aghast and wondered how they were going to take care of all that property.

Gen. CARTER. I would like to make a statement as to how this occurred. I think that regiment is in Buffalo, N. Y. They have served in the World War overseas in France and decided to organize the regiment and asked to have the same guns and carriages and materials they had used over there, and the Ordnance Department granted their request, segregated all that stuff they had over there and stored it in their various arsenals, and when it was organized we sent in a request for the equipment for one battery and the Ordnance officer told us it was crowding his warehouse and couldn't be taken care of by the States. We wrote the State and asked if they could not take care of the full equipment of that regiment and if they could take it now, and they replied that they could and thereupon we shipped it.

Mr. ANTHONY. The case you cite is Buffalo, N. Y.?

Gen. CARTER. Yes, sir.

Mr. ANTHONY. The case I have in mind is in one of the Western States.

Gen. CARTER. I do not know of any such case.

Mr. CRAMTON. I am trying to get just as clear an understanding as I can of your program. We were talking the other day about gas masks of the Chemical Warfare, and unless my memory is wrong it is their program and their theory that the National Guard should be completely equipped, as completely equipped as the Regular Army, with the latest type of gas masks, which is a very heavy expense. Now even though it was done and you to-day were to equip the National Guard with the latest type of gas mask, and that they will not need to use in practice maneuvers, two years from now, having given you the money for that purpose, you will be back here asking for an appropriation for gas masks to replace those that had become obsolete by that time, as I anticipate it would.

Gen. CARTER. We have never furnished gas masks to the National Guard, nor do we intend to do so. We only furnish them with equipment that is absolutely essential to their training as soldiers.

Mr. CRAMTON. But is it definitely in your regulations stated somewhere, in your published program, that you do not propose to furnish to the National Guard equipment except such as is necessary for their immediate training?

Gen. CARTER. Yes; we have told them that there are certain details of equipment that they must have. Of course, we have to give the men the clothing necessary for them to turn out with to go to field training with.

Mr. CRAMTON. Certainly.

Gen. CARTER. Because they are 15 days in camp each year. Therefore, they must have tentage, which they would not have if they merely had armory drills.

Mr. CRAMTON. Have you in condensed form that part of the program so you could put it in the record?

Gen. CARTER. It would make a bulky part of the record. We will give it in as condensed form as we can.

Mr. CRAMTON. Just that which bears on this question.

Mr. ANTHONY. Each type of unit.

The present policy as to furnishing equipment to the National Guard is to supply essential articles of clothing, equipage, arms, and organizational equipment such as is furnished the Regular Army, but eliminating certain articles which are not deemed necessary for the Government to supply, but which, if used in connection with the National Guard, should be furnished by the States or by the individuals concerned, such as toilet articles, razors, service caps, collars, ties, handkerchiefs, mirrors, suspenders, etc. Each enlisted man is furnished with only one uniform of cotton and one of wool; two pairs of shoes, his mess and other personal equipment, necessary for training and for use in the authorized encampments; his rifle or other arms necessary for his training and drill purposes; while the organizations are issued organizational equipment for training as such, including essential technical training of the men as soldiers and in functioning according to their respective arms of the service. In the case of Field Artillery, the necessary guns or howitzers are furnished together with the pertinent fire-control, signalling, and engineer equipment for the training of the units. Machine-gun organizations are issued a minimum number of machine guns and pertinent articles. Cavalry and Artillery units are issued horses to the limit fixed by law, viz., 32 animals per troop or battery, which are considered sufficient for training purposes. Medical units are issued basic supply of instruments and, for authorized encampments, are supplied with a basic supply of apparatus and medical supplies. Prior to this year no motor equipment has been furnished the National Guard, but, in view of the surplus of such material purchased by the War Department during the World War, some of this surplus material has been issued to the National Guard, in quantities considerable less than the authorized allowance of such equipment to the Regular Army, as a matter of disposal of such surplus without sacrifice to the Government by sale, and as a matter of training and practical use by the National Guard. No Air Service equipment has been issued to the National Guard to date.

The National Guard is furnished equipment known and prescribed as "Equipment allowance A" for the Regular Army, which is such as is used in the field, less the exceptions above noted as being considered nonessential for the National Guard. No equipment such as is issued the Army only for use at posts is issued the National Guard, excepting arm racks which are a protection for the Government's rifles and pistols issued to the National Guard.

The National Guard is not being equipped to war strength nor to complete equipment as prescribed for the Army, so that, in the event that the National Guard should be called or drafted into Federal service, additional equipment would be required to perfect the organizations for Federal field duty. The equipment supplied the National Guard is limited to the minimum for training and for possible State duty.

Mr. CRAMTON. I think, Mr. Chairman, we want as definitely as possible what is the program on that line.

One other question, General: The department through your bureau is proceeding to organize the National Guard and is asking appropriations for the organization of the National Guard. In accordance with your construction of the act, which I think you would understand would provide a National Guard of about 400,000, would it not, generally speaking?

Gen. CARTER. Ultimately 440,000.

Mr. CRAMTON. At the same time the department has some very pronounced views as to the size of the Regular Establishment which we should maintain and is proceeding also under this same act to recruit up to the full authorized strength the Regular Establishment. Has the General Staff or the department given consideration to the

organization of the National Guard to its full authorized strength as a reason for any modification of the size of the Regular Establishment.

Gen. CARTER. I suppose they have. I am not a member of the General Staff and I do not know just what they have done, but they fully understand the strength——

Mr. CRAMTON. Has it had any perceptible effect upon their judgment as to the size of the Regular Establishment required.

Gen. CARTER. I should think you ought to ask them about that. I do not know.

Mr. CRAMTON. You happen to be here, General, and it does come within the scope of the matter you are interested in, and in this connection I wanted to suggest that—and you understand I am very new on these things and I am trying to get perhaps confirmation of what I think is the fact. The War Department wanted an Army of 500,000 men and some-odd men and the only reason that that figure of 500,000 men was reduced to 280,000 men in the Regular Establishment was not because we gave the National Guard authorization of 400,000 because when they asked for the Regular Army of 500,000 they wanted also a similar National Guard with it, and the only reason that is cut from 500,000 to 280,000 is not because of having a National Guard organization of 400,000 organized on identical lines and similarly equipped and drilled, but simply because Congress would not stand for more than 280,000; is not that a fact?

Gen. CARTER. I suppose it is; I am sure I do not know.

Mr. CRAMTON. In other words, no matter how big the National Guard, no matter how much money we put into it, no matter how well drilled or organized, the department will insist on the biggest Regular Army that Congress will stand for; is not that true?

Gen. CARTER. I do not think that is true, sir. I think every officer of the Army is earnestly interested in seeing proper preparedness made for military defense, but there is as great a diversity of views among Army officers as to what that is as there is between Members of Congress. One man will tell you we do not need 500,000 and the next one you talk to will say you need more, but that is a matter to be adjusted after you have heard the expert advice of the officers according to your views of what the needs of the country are and what the Treasury will stand.

Mr. CRAMTON. But you have no knowledge, being at the head of the Militia Bureau, of any statement or pronouncement of the General Staff or other authorities that indicate that this organization of a great National Guard has any effect on reducing the size required of the Regular Army.

Gen. CARTER. They have taken fully into consideration the size of the National Guard that they would probably have in any emergency and the uses to which they would be put. I know that of the plans I have seen.

Mr. CRAMTON. I am speaking as one who has great faith in the organization of a National Guard as a supplement to the Regular Army and had hoped that with a proper National Guard we might get along without a larger Regular Army, that being our concept of a citizen army instead of a Regular Army.

Gen. CARTER. I am at the head of the Militia Bureau and I ask you gentlemen to seriously consider whether it is worth while to

back to the old method of militia we had where the State organized any unit it saw fit, kept it at any strength it saw fit, and we were not able when war broke out to use the National Guard as an efficient military force. It has been my idea to keep its standard high enough to make it available to the National Government in time of war. It seemed to me to be a business proposition that if the Federal Government spends money for the National Guard it should receive a return for that money.

Mr. CRAMTON. Do you mind an interruption, General, in connection with that?

Gen. CARTER. No.

Mr. CRAMTON. The condition of the National Guard when the war broke out ought not to be charged entirely to the States. I was a member of my State legislature when the proposition came up of reorganizing our National Guard in accordance with the wishes of the War Department and we did so absolutely. We followed every suggestion made by the War Department, and it is my understanding the National Guard was organized in connection with the regulations and still the National Guard was so handled through the War Department that it was only through the splendid efforts of Gen. Hahn that that organization on the part of the State in accordance with the wishes of the department was not used for replacements.

Gen. CARTER. I was not speaking of the National Guard that came into the Regular Army in 1917. That was a good force, and before that when it went on the border it was a comparatively good force, but you gentlemen will remember the time when we had companies varying in strength from 10 to 100 and variously equipped and trained, and the people put some dependence in that force because they were armed and in uniform and thought they were soldiers, but they were of no value to the Government whatever.

Mr. ANTHONY. At the time you speak of you had a Regular Army organized the same way with companies way below their strength.

Gen. CARTER. The strength was whatever was fixed by Congress. They were doing police duty on the Indian frontier.

Mr. ANTHONY. Their strength, as you say, was authorized by Congress, but it was way below the strength authorized by Congress and you had companies that were just as weak and ineffective as the National Guard was at that time.

Gen. CARTER. At particular times it would be, but I served with a troop of Cavalry for a number of years and it was never below 65, which was the maximum number.

Mr. ANTHONY. But we had evidence before our committee to show at the time the National Guard was established on the Mexican border there were companies in the Regular Army reduced below 45 men.

Gen. CARTER. But I do not take that as a reason for reducing the size of the National Guard.

Mr. ANTHONY. No; but I cite that as showing the injustice of criticizing the National Guard for being reduced below that sometimes.

Gen. CARTER. I am not criticising the National Guard. I am saying we do not want to go back to the bad condition that formerly existed, and that is what I am afraid we will do.

Mr. CRAMTON. And I want to emphasize that encouragement from the War Department and the General Staff I think is vital—not only appropriations from Congress, but encouragement from the General Staff.

Gen. CARTER. If you are going to say you are going to organize them on a cheap basis and can have only infantry we know when the big game comes they will play no part in it. They will not have that pride in having their separate units that can be taken into the field as separate units.

Mr. CRAMTON. Let me ask you this question: What do you suppose will happen when the big game comes? I am an outsider, but it is my recollection that at the outbreak of the war, Congress provided that insofar as possible local designations and local organizations should be continued. Now, on the contrary, when the big game came the War Department, taking advantage of that discretion given them by Congress, went to the other extreme and apparently broke up local organizations and ended local designations to the utmost possible, so that they came out of the war not as distinct organizations that had been in existence for years and went through that game together and now want to continue together, but they came out as just fragments without name and without location. Now when the next great game comes will the War Department follow that same policy?

Gen. CARTER. No, sir; that is just what I am trying to avoid. Let me explain that. I thought everybody understood that.

Mr. Sisson. I do not think anybody understood it and I do not think it can be explained why you took a man from Mississippi and shoved him in with a man from Maine, both being good men and don't think it can be explained.

Gen. CARTER. I would like to make an effort, if you will permit.

Mr. CRAMTON. Let me specify. There was one machine company from my district and I visited that company over there and they were going to drill and they stopped the line long enough for me to say "hello" to the boys. Most of the men in that company were from Kansas, Montana, Wyoming, and Missouri.

Gen. CARTER. That was after it was on the other side?

Mr. CRAMTON. That was after it was on the other side.

Gen. CARTER. I can explain that.

Mr. CRAMTON. I know it is not always possible, but it seems to me they might occasionally work in a boy from Michigan as one of the replacements.

Gen. CARTER. If you will hear me patiently I think I can explain.

Mr. CRAMTON. Certainly, General, I am trying to get your point—that is all.

Gen. CARTER. When the war broke out we had organized the National Guard into maneuver divisions that had nine regiments of Infantry, one of Cavalry, two of Field Artillery, and the auxiliary troops that went with them. Our experts who went overseas—those who came over here, Marshall Joffre, Gen. Bridges, and all advised us that if we sent our divisions organized like the French we would have to take over a separate section of the front, organize our own communications and be a separate army and not function with the French, British, and Italian troops: that

would have to organize as they were organized otherwise we could not use their trench systems, could not use their lines of communication, could not operate under any orders they issued, and that we would have a totally different kind of Army from those organized on the French section. So it was found necessary to reorganize the Army we sent over there with divisions composed for four regiments of Infantry, three of Field Artillery, none of Cavalry, because Cavalry could not be used. It was very simple to reorganize the Regular Army, but the National Guard had come in with all these existing units and the Twenty-eighth Division had nine regiments of Pennsylvania Infantry, one of Cavalry and two of Field Artillery, and the necessary auxiliary troops to make it up, and it was a difficult question to decide how to reorganize those units and create as little bit of feeling as possible and get them to the other side in proper condition to render service. After extended conference it was decided to break up those units and utilize all the trained officers and men we had in the composition of the new unit such as used on the other side, so it would keep the Pennsylvania men together and Wisconsin men together and men from the same district together.

Mr. ANTHONY. Why did you have to destroy the regimental units of the National Guard?

Gen. CARTER. Because we had nine regiments of infantry and to cut them down to four we must destroy five.

Mr. CRAMTON. Was it in pursuance of that policy that the 32d Division taken immediately from the Mexican border and taken across would have been used as replacements except for Gen. Hahn's persistence?

Gen. CARTER. I do not know where you get your information, because I do not have it.

Mr. CRAMTON. I think it is correct.

Gen. CARTER. But that question of what divisions should be used in the line and what divisions should be used for replacements was up to Gen. Pershing, the commander in chief, to decide.

Mr. CRAMTON. I am not holding you responsible. I do not care who was responsible, whether Gen. Pershing or the Chief of Staff or who, but I am trying to find out whether if we follow this policy and encourage the National Guard for times of peace, that then when the great game comes they will face the possibility of being torn to fragments as before.

Gen. CARTER. I do not think they will, because they will be organized exactly as the Regular Army and used in that organization.

Mr. CRAMTON. You see, General, Congress must not say positively that these organizations must be kept intact. That would be disastrous. You realize that.

Gen. CARTER. Yes; I see that.

Mr. CRAMTON. So it is necessary we give discretion to the War Department, but we do have the right, representing the people, to express to you our wishes, and those ought to be held inviolate by the War Department.

Gen. CARTER. We are earnestly striving to do that very thing.

Mr. CRAMTON. And in the last emergency our granted discretion was abused by the military authorities.

ANNUAL COST OF MAINTAINING NATIONAL GUARD.

Mr. SLEMP. May I ask one question on that?

Mr. ANTHONY. Yes.

Mr. SLEMP. I would like to see what this is going to lead the Government to. Your 440,000 men when equipped, their expenses will be simply the expenses of mobilizing the men and drilling them for two weeks.

Gen. CARTER. And paying their drill pay and paying instructors.

Mr. SLEMP. For the two weeks.

Gen. CARTER. No; we keep regular officers of the Army and some noncommissioned officers of the Army constantly with the National Guard for purpose of instructing.

Mr. SLEMP. What, roughly speaking, will be the annual charge of the Government just for that continuous service.

Gen. CARTER. I have that and will send it down.

Mr. SLEMP. That is No. 1. Now what annual expense with regard to equipment, etc., would you ask made for those 440,000 men? I want to visualize the National Guard proposition.

Gen. CARTER. Original equipment would cost \$220,000,000. Replacement each year about 10 per cent. Other items of training and maintenance, drill pay, etc., \$80,000,000. That will, of course, depend on how much we can get free.

Mr. SLEMP. Your theory about that is that it is at a diminishing rate, really?

Gen. CARTER. Yes; but I think it will not diminish further on account of the fact we have such a large quantity of field artillery and rifles and matters of that kind that we are now getting from that we can equip the whole National Guard without cutting into the reserve.

Mr. SLEMP. Then you do not expect the equipment of the 440,000 outside of uniforms will be increased.

Gen. CARTER. The rate will not be increased over the present.

Mr. SLEMP. Then that would make an annual charge against the Government of, say, \$2,000,000 a year.

Gen. CARTER. I have never estimated it and do not know.

Mr. SLEMP. Now I will stop.

Mr. ANTHONY. Are you all through on that?

Mr. SLEMP. Yes.

Mr. Sisson. Mr. Chairman, one minute. I am not altogether satisfied and want to ask one or two questions, but by prefacing my remarks by saying that when Congress had up this bill to organize this Army for fighting purposes Congress wanted the units, as Mr. Cramton suggested, as nearly as possible to be kept together and provided that clause in the bill.

Gen. CARTER. Yes.

Mr. Sisson. It was then urged that men made better soldiers by some Army officers; some Army officers said we were wrong. It was said we don't want men from the same communities. To make better soldiers when mixed together and, therefore, that provision we think was utterly ignored, but the number of the National Guard, omitting that part of it in reference to the Congress shall be increased each year thereafter in the proportion of not more than 50 per cent until a total strength of not less than 800,000.

men for each Senator and Representative in Congress. Now that will give you an Army at the present apportionment of what?

Gen. CARTER. You have to add to that some men for the District of Columbia. I figure it would be approximately 440,000.

Mr. Sisson. Four hundred and forty thousand.

Gen. CARTER. Yes; ultimately.

Mr. Sisson. That will be practically nearly three times what we now have.

Gen. CARTER. In the National Guard?

Mr. Sisson. In the National Guard.

Gen. CARTER. About five times. We have now about 80,000.

Mr. Sisson. I was figuring on your \$74,000,000 request, but, say, four times. That would be approximately \$300,000,000 that the National Guard would cost us if this cost per unit keeps up.

Mr. SLEMP. I have just asked him to put that in the record, Mr. Sisson.

Mr. Sisson. Wait one moment. That is under the present plan and program. Now it is insisted as I understand, by those who construe the law, that that means you ought to organize these units in accordance with the Regular Army organization so they will fit into that in time of war, and combine with each unit as the Army is organized. Now this is the law: "The President shall make all necessary rules, regulations, and issue such orders as may be necessary for the thorough organization, discipline, and Government of the militia provided for in this act." Now that means the militia provided for in the act, not that portion of the act having reference to the organization of the Army because it does say, in accordance with this act, but in accordance with the provisions of this act that relates to the militia. Now let us see what that is. "The Secretary of War shall cause to be estimated annually the amount necessary for carrying out the provisions of so much of this act as relates to the militia, and no money shall be expended under said provisions except as shall from time to time be appropriated for carrying them out."

Now if this language means anything I agree literally with the chairman; it is a matter of regulation to be made by the President. Therefore, if the President should say that we want an organization of the State militia for militia infantry units you would avoid the enormous expense of providing them with all this equipment. If you please, we find two requests for equipment that overwhelm us. Therefore, if that has been done it evidently has been done by the General Staff's recommendation to the Secretary of War and the President. So, as the chairman suggests, it is a matter of regulation as to what the National Guard shall be under the provisions of this act. Therefore, the policy might be changed. In other words, we have left it under this act practically with the President in the last analysis to determine what the National Guard shall be.

Gen. CARTER. But I think that the latter part of section 60 of the act which prescribes that the President may prescribe the unit or units as to branch or arm of service to be organized, so that they shall when combined form complete higher tactical units, is mandatory on the President.

Mr. Sisson. I do not see how you get that.

Gen. CARTER. The last half of section 60.

Mr. Sisson. I think it is important at this time that we should know what the policy is going to be, "Except as otherwise specifically provided herein, the organization of the National Guard, including the composition of all units, shall be the same as that which is or may hereafter be prescribed for the Regular Army, subject in time of peace to such general exceptions as may be authorized by the Secretary of War."

Gen. CARTER. Yes, sir.

Mr. Sisson. Well, that "specifically," but I do not think you would anchor yourself on that.

Gen. CARTER. No. We have authorized certain exceptions to lessen expense, but it is the latter half.

Mr. Sisson. "And the President may prescribe the particular units or units, as to branch or arm of service to be maintained in each State, Territory, or District of Columbia and ought to secure a force which when combined, shall form complete higher tactical units." Now it is always left to his discretion unless to the discretion absolutely of those who administer this law, so that I do not think it can be contended that Congress is responsible except for having left it to the discretion of those who administer the law. I may be mistaken.

Gen. CARTER. We were trying to gather the intent of Congress from reading that law and trying to find out what we construed it to be.

Mr. Sisson. I do not think you hit it at all. I believe the chairman was a Member of Congress when this law was passed, were you not?

Mr. ANTHONY. Absolutely.

Mr. Sisson. And they felt they would leave it to your discretion and that discretion seems to be, to adopt your expression, not along a cheap line. Now I am one Member of Congress who believes in cheapness, if you mean by cheapness small appropriations economically administered. I do not believe you can take the public funds of the people—and they are outraged to-day at the expenditure of money which they as practical people do not believe they are getting practical results from—and you must keep in mind the Army is organized for the people and not the people for the Army, and Congress is organized for the people and not the people for Congress and we provide the Army should exist with the welfare and well-being of the people who pay the bills and pay the expenses. Therefore I think when you refer to the militia as being a cheap militia if you mean cheap men and cheap personnel why, of course, we would have to resent that, because it is made up of American boys.

Gen. CARTER. You know perfectly well I did not mean that. I think you have put constructions on what I have said and what I have done that are very unjust.

Mr. Sisson. I hope I will not be unjust, General, because I am a violent advocate of the establishment of the National Guard. Unlike Mr. Cramton, I would like to see when you have a well organized National Guard or State Militia—like to see it reflected somewhat in the Regular Army establishment and not have to keep up the two. So I would assure you, General, if I have said anything which in any wise does you an injustice or that in any way in the least reflects upon anything you have said, it is far from my purpose to do it.

ARMING, EQUIPPING, AND TRAINING THE NATIONAL GUARD.

PURCHASE OF ANIMALS FOR MOUNTED UNITS.

Mr. ANTHONY. Let us take up the paragraph for arming, equipping, and training the National Guard for which you estimate \$34,808,000 as necessary and for which there is appropriated \$20,000,000 during the present year. The first estimate is for purchase of animals, for mounted units. You ask for \$2,000,000 and there was appropriated for the present year \$1,218,482 for this——

Gen. CARTER. Will you hear Col. Wilson on that?

Mr. ANTHONY. Yes, sir.

STATEMENT OF COL. C. WILSON.

Col. WILSON. May I add first, Mr. Chairman, you asked a question which I might answer; that is, how much of the \$20,000,000 was expended up to to-day.

Of that \$20,000,000 we have expended a little more than half and a little less than two-thirds. As to the \$8,000,000 appropriated for this year for equipment, we can not tell you exactly how much has been spent because we have not had an accounting yet, but the total possible value of all equipment of the National Guard to date is \$18,000,000, although I can not tell you exactly how much we will have to pay, but we have paid about \$4,000,000 to date for clothing and equipage.

Now, as to the 155 howitzers, rifles, etc., that is included in the fifteen million, we will get those free.

Mr. ANTHONY. There is \$8,000,000 carried for equipping the guard in the Quartermaster's appropriation?

Gen. LORD. No.

Mr. ANTHONY. Where is the \$8,000,000 carried?

Col. WILSON. In the National Guard appropriation.

Mr. ANTHONY. Are there any appropriations carried under the other items in the Army bill that are used for National Guard purposes?

Col. WILSON. No, sir.

Mr. ANTHONY. All appropriations for equipping, subsisting, and maintaining the guard are carried under these National Guard heads?

Gen. CARTER. Yes; except we get supplies from the Army which are surplus without charge.

Mr. Sisson. Does it show how much of that surplus you have gotten up to date? Will your records show that?

Col. WILSON. No; because the status of the articles available for free issue, Mr. Sisson, is rather uncertain at present.

Mr. Sisson. Have you any data to show how much you actually obtained?

Col. WILSON. Free?

Mr. Sisson. Yes.

Col. WILSON. No, sir. It has been rather difficult to get an accounting of that to date.

Mr. ANTHONY. Now, Colonel, why the increase in the amount you want for the purchase of animals?

Col. WILSON. For a strength of 238,000 men it was figured that 29,000 animals would be needed, and as the value to-day is about \$200 per animal on the average, it would require that \$5,800,000. Now, it was estimated that approximately 8,000 animals would be procured under the appropriation before the close of this fiscal year and probably not more than 15,000 would be obtained during the fiscal year to follow. From this it will be seen that the full amount of \$2,000,000 should be allowed by Congress.

Mr. ANTHONY. Were you basing the estimate of the appropriation of \$2,000,000 on the size of the National Guard being 238,000 men?

Col. WILSON. Our estimate as originally submitted was for \$3,000,000, for 15,000 horses, based on the probable necessities for 238,000 men. On the basis of 125,200 men, we will need about 16,000 horses. Deducting estimate of 6,000 horses issued during 1921, this will leave 10,000 horses to be purchased at \$200 each as a total of \$2,000,000.

Mr. ANTHONY. But I understood you to say you did not anticipate the guard would reach that size during the next two years.

Col. WILSON. I say we can not tell how many animals we will purchase in this fiscal year, and we might have a surplus for the next fiscal year.

Mr. ANTHONY. Have you taken into consideration as to whether or not there would be any surplus animals developed?

Col. WILSON. The possibility of a surplus being developed after June 30 next was not taken into consideration. As to a surplus this year, we have taken that into consideration, but believe there is none.

Mr. ANTHONY. If the size of the Regular Army was reduced from 280,000 that the War Department proposes to maintain to 150,000 men, the chances are there would be a considerable number of surplus animals.

Col. WILSON. Possibly so.

Mr. ANTHONY. If the whole Army was reduced?

Col. WILSON. Yes, sir. If we get the horses we do not care whether they are paid for or whether we get them free.

Mr. ANTHONY. Is it your purpose to equip all mounted units with animals, in the National Guard?

Col. WILSON. The Cavalry and Artillery and the headquarters of those organizations, yes, sir; to the limit fixed by Congress of 32 per unit.

Mr. ANTHONY. You mention headquarters?

Col. WILSON. A headquarters of a mounted unit would get 32 horses instead of 32.

Mr. ANTHONY. These animals would be utilized for what purpose?

Col. WILSON. Training purposes.

Mr. ANTHONY. For Cavalry?

Col. WILSON. Yes, sir.

Mr. ANTHONY. And Artillery?

Col. WILSON. Yes, sir.

Mr. ANTHONY. And all other mounted units?

Col. WILSON. Yes,

Gen. CARTER. Strictly mounted units are required to use animals in their duty. We do not furnish any further than

sanitary units, or battery of Artillery, and they get their horses from them.

Mr. ANTHONY. How many units of Cavalry and how many units of Artillery are you maintaining now?

Col. WILSON. To date?

Mr. ANTHONY. Yes.

Col. WILSON. If I might answer in this way: We have issued about 4,000 horses to date. If you would like to have the units, I can give them to you.

Mr. ANTHONY. I suppose that shows in this statement.

Col. WILSON. It will be in the first statement you asked for, sir.

Mr. SLEMP. This estimate includes replacement of horses?

Col. WILSON. Yes, sir; a fair average for that.

I have not quite finished about the horses, Mr. Anthony. As the full 23,000 horses will not be on hand for the full year, because they are issued periodically, it is probable that, basing this number on the average of nine months, the maintenance will be \$3,440,763.20 under the appropriation.

Mr. ANTHONY. Colonel, how much more does it cost you to maintain a troop of Cavalry in the National Guard, with an equipment of horses, than to maintain a company of Infantry?

Col. WILSON. The difference would be simply the cost of the forage, plus the cost of the caretakers.

Mr. ANTHONY. And the cost of the horses?

Col. WILSON. And the cost of the horses.

Mr. ANTHONY. Have you any figures that will give an idea what that will be?

Col. WILSON. I can give them; yes, sir.

Mr. ANTHONY. And also put in the cost of maintenance of a battery of Artillery?

Col. WILSON. Yes, sir.

Mr. ANTHONY. And other mounted units, in comparison with maintaining a company of infantry.

COST OF HORSES.

Col. WILSON. With reference to the cost of the horses and all the factors that go with the horses?

Mr. ANTHONY. Yes.

(Statement of Col. Wilson:)

Cost of horses for one troop cavalry, plus cost of forage for one year, and cost of caretakers.

32 horses, at \$200 each.....	\$6, 400
32 horses, at \$190 each per year.	6, 080
5 caretakers, at \$70 each per month, for 32 horses (per year).....	4, 400
Total.....	16, 880

Cost of horses for one battery field artillery, plus cost of forage for one year, and cost of caretakers.

32 horses, at \$200 each.....	\$6, 400
32 horses, at \$190 each per year.....	6, 080
5 caretakers, at \$90 each per month, for 32 horses (per year).....	5, 200
Total.....	17, 680

Mr. Sisson. Did you say that you had issued 4,000 horses?

Col. WILSON. Four thousand one hundred and seventy-three horses to date, Mr. Sisson.

Mr. Sisson. That would not necessarily mean that you have that many on hand; some of them may have died?

Col. WILSON. Well, out of that total of 4,173, I know to date that we have lost 5 horses by death so far as loss has been reported by the States.

Mr. Sisson. In other words, these horses, you say, cost about \$200 each?

Col. WILSON. Yes, sir; but in most of those instances they cost \$190, but the price, of course, varies.

Mr. Sisson. \$200 each for 4,000 horses would be \$800,000. would it not?

Col. WILSON. Yes, sir.

FORAGE, BEDDING, ETC., FOR ANIMALS.

Mr. ANTHONY. For procurement of forage, bedding, etc., for animals, you are asking for \$3,440,763. That is \$1,400,000 more than you had in the current appropriation?

Col. WILSON. Yes, sir.

Mr. ANTHONY. Is that because of the increased number of animals you propose to issue?

Col. WILSON. In the aggregate; yes, sir.

Mr. ANTHONY. How many animals will this amount of forage take care of?

Col. WILSON. Sixteen thousand.

Mr. ANTHONY. And you say there are 4,000 issued now?

Col. WILSON. Yes, sir.

Mr. ANTHONY. Upon what price have you computed your estimate for forage and bedding, what month of the year?

Col. WILSON. We got the general average. The price of forage varies greatly throughout the United States; in the East it varies from the Middle West; in the Middle West it varies from the Pacific coast, and in the South from the North.

Mr. ANTHONY. You took the average all during the last calendar year?

Col. WILSON. Yes, sir.

Mr. ANTHONY. It will probably be reduced during the current year with the present trend of prices?

Col. WILSON. Very possibly so.

FOR COMPENSATION OF HELP FOR CARE OF MATERIAL, ANIMALS AND EQUIPMENT.

Mr. ANTHONY. For compensation of help for care of material animals, and equipment, you ask for \$3,077,700, while the current appropriation is \$1,873,000. Why is that?

Col. WILSON. Owing to the increased number of animals next year.

Mr. ANTHONY. Now, what help, under the national guard act, is provided for the care of those animals?

Col. WILSON. Five of the enlisted men of each unit.

Mr. ANTHONY. They are paid how much for the care of the animals?
Col. WILSON. They are allowed according to the number of animals in the organization, and the allotment made, but could not in the aggregate—they may have four or five, but not to exceed five, because that is prescribed in the law.

Mr. ANTHONY. What salary do you pay the men who care for the animals?

Col. WILSON. An average of \$70 a month each for Cavalry unit and \$90 per month for Artillery units, which includes care of material in addition to the horses.

EXPENSES, CAMPS OF INSTRUCTION.

Mr. ANTHONY. For expenses, camps of instruction, you are asking \$9,796,000 next year as against \$5,968,125 for the current year. Did you expend the money that was appropriated this year for that purpose?

Col. WILSON. To the extent of the authorized encampments, yes, sir.

Mr. ANTHONY. How much of that has been spent?
Col. WILSON. I did not bring those figures with me.

NOTE.—Approximately 48 encampments (4-day, 15-day, and national matches), \$2,068,621 of the appropriation has been spent, leaving a balance of \$3,899,504.

Mr. ANTHONY. You did not have many camps of instruction during the present year, did you?

Col. WILSON. No, not in comparison.
Gen. LORD. There has been no allotment for it. They have been carried under emergency.

Mr. ANTHONY. Did you hold any camps of instruction this year?
Col. WILSON. Yes, sir.

Mr. ANTHONY. Can you put in the record how many camps were held and how much has been expended from this item?

Col. WILSON. Yes, sir.
Mr. ANTHONY. And how much remains?
Col. WILSON. Yes, sir.

4-day and 15-day encampments during the fiscal year 1921.

State.	4-day camps.	15-day camps.	National match.
Alabama.....		Aug. 8-22.....	Team to Camp Perry.
Arizona.....		Sept. 7-21, inclusive....	Do.
Arkansas.....			
California.....		Sept. 12-26, inclusive....	Do.
Colorado.....			Do.
Connecticut.....		Aug. 1-15, inclusive....	
Delaware.....			
District of Columbia.....		Aug. 15-30.....	Do.
Florida.....	July 23-26, inclusive....	Aug. 8-22, inclusive....	Do.
Georgia.....			
Hawaii.....	Practice march, July 17-18 and Aug. 14-Sept. 1.	Sept. 18-Oct. 2.....	
Idaho.....			
Illinois.....			
Indiana.....			
Iowa.....		Aug. 10-24.....	
Kansas.....	State competition, July 25-31.	Aug. 15-30.....	Do.
Kentucky.....			Do.
Louisiana.....			
Maine.....		July 1-4 ¹	

¹ This camp extended from June 20 to July 4.

4-day and 15-day encampments during the fiscal year 1921—Continued.

State.	4-day camps.	15-day camps.	National match.
Maryland.....	State competition, July 26-Aug. 1.	.....	Team to Camp Perry
Massachusetts.....	Nov. 6-20.....	Rifle camp at Wakefield, Oct. 9-12.
Michigan.....	Team to Camp Perry.
Minnesota.....	Aug. 14-28.....	Do.
Mississippi.....	July 11 to 25, 15-day practice march; Aug. 22-Sept. 5.	Do.
Missouri.....	Do.
Montana.....	Do.
Nebraska.....	Do.
Nevada.....	Do.
New Hampshire.....	Do.
New Jersey.....	July 11-25 and July 25-Aug. 8.	Team to Camp Perry Sea Girt July 1-Aug. 1.
New Mexico.....	Do.
New York.....	Camp Upton, Fort H. G. Wright, Plattsburg Barracks, Camp Bragg. Sept. 7-21.....	Team to Sea Girt.
North Carolina.....	Do.
North Dakota.....	Do.
Ohio.....	July 1-17, Sept. 1-17.....	Team to Camp Perry
Oklahoma.....	July 16-20; Aug. 6-20.....	Do.
Oregon.....	July 6-20.....	Do.
Pennsylvania.....	Mount Gretna, Aug. 1-15 and Aug. 7-21; Camp Bragg, Sept. 3-30.	Team to Sea Girt.
Rhode Island.....	Aug. 1-14.....	Do.
South Carolina.....	July 15-29.....	Team to Camp Perry
South Dakota.....	Do.
Tennessee.....	July 16-30.....	Team to Camp Perry and 5-day State competition.
Texas.....	Aug. 6-20.....	Team to Camp Perry
Utah.....	Do.
Vermont.....	Aug. 7-21.....	Team to Wakefield
Virginia.....	July 13-27.....	Do.
Washington.....	July 11-25.....	State competition: (1) 9, and 10; team Camp Perry.
West Virginia.....	Do.
Wisconsin.....	July 19-Aug. 8.....	Do.
Wyoming.....	Aug. 15-19.....	Aug. 21-Sept. 4.....	Do.
Porto Rico.....	Nov. 23-26.....	Dec. 6-20.....	Do.
Total.....	6 camps.....	39 camps.....	26 teams to 3 camps

Mr. ANTHONY. I suppose the increase is based on the increase in number of men you figure will be in the guard?

Col. WILSON. Yes, sir. We submitted our original estimates for that item on the basis of 238,000 men, and we believe the reduction submitted by the War Department will be sufficient if the probable strength is 125,200 men.

Mr. ANTHONY. The figure that is in the bill is a reduction from the amount it would take to care for 238,000 men?

Col. WILSON. Yes, sir; it is practically a pro rate.

Mr. ANTHONY. And based on how many men?

Col. WILSON. 125,200.

EXPENSES, SELECTED OFFICERS AND ENLISTED MEN, MILITARY SERVICE SCHOOLS.

Mr. ANTHONY. For expenses, selected officers and enlisted men in military service schools, you are asking for \$367,673.80 as against \$224,002 appropriated this year.

Col. WILSON. That is the probable expansion of the National Guard. We consider this one of the most important items in the appropriation, Mr. Anthony, the training of these men in military service schools.

Mr. ANTHONY. How much of the appropriation have you used this year?

Col. WILSON. We have either used or obligated all of it, sir.

Mr. ANTHONY. How many officers and enlisted men of the National Guard are you authorized under the law to train in military service schools?

Col. WILSON. There is no limit placed by law. The limit is the appropriation. To date we have 98 officers and 138 enlisted men in the schools.

Mr. ANTHONY. And the entire amount of \$224,000 was utilized in the instruction of the 98 officers and 138 enlisted men?

Col. WILSON. Oh, these figures I gave you just now are those actually spent to date. What I meant by obligations was they are just being put through.

Mr. ANTHONY. You mean there are more officers and enlisted men in addition to those that are going through?

Col. WILSON. Yes, sir.

Gen. CARTER. When they are sent there they get full pay.

Mr. ANTHONY. What experience at school do you give an officer?

Gen. CARTER. From three to four months.

Mr. ANTHONY. At what school?

Gen. CARTER. At the Benning Infantry School, at the Fort Riley Cavalry School. Camp Humphreys Engineering School, depending on the branch.

Mr. CRAMTON. You do not send any to technical school.

Gen. CARTER. No.

PAY AND ALLOWANCES OF OFFICERS NATIONAL GUARD DETAILED WITH THE ARMY.

Mr. ANTHONY. For pay and allowances of officers National Guard detailed with the Army, \$2,012,000.

Col. WILSON. That is, as Gen. Carter stated in the first part of the hearing, problematical, if the full authorized 500 officers are to be sent our estimate is correct.

Mr. ANTHONY. What is that?

Col. WILSON. Our original estimate was \$2,300,900. The estimate forwarded by the War Department is \$2,012,000. That is for officers of the National Guard detailed with the Regular Army.

Mr. ANTHONY. They are authorized to be detailed with the Regular Army for a period of not more than six months?

Col. WILSON. Yes, sir.

Gen. CARTER. We had no appropriation heretofore. That is only carried from last June.

Mr. ANTHONY. What is the average pay of an officer of the Army? About \$3,000 per annum, is it not, roughly?

Col. WILSON. \$3,000, yes, sir.

Mr. ANTHONY. Well, now taking the average pay of an officer of the Army, average of all grades, at \$3,000 per annum, 500 officers one year would cost \$1,500,000, If they are only detailed for six

months as authorized by law that would be \$750,000. How do you reach your figure?

Col. WILSON. They are also entitled to quarters, transportation, and allowances of enlisted men which make up the difference which you mention.

Mr. ANTHONY. Well, when they are sent to these camps they will either be placed in existing quarters or put into tents, will they not?

Col. WILSON. Yes, sir; if they are available. The Comptroller of the Treasury also held that where they had dependents at home they are entitled to the provisions for dependents' quarters. That is quite an item.

Mr. ANTHONY. Dependents, do you mean, due to the state of war?

Col. WILSON. Yes, sir.

Mr. ANTHONY. Then we better defer this training of guard officers while we are at war if it is going to run into this sum.

Col. WILSON. Yes; if the war was finally declared over that would cease.

Mr. CRAMTON. Would it cease?

Col. WILSON. The law covering that says that it is for the period of the emergency.

Mr. ANTHONY. You would not detail an officer who had such dependents at home, would you? You would try to pick out officers who did not have dependents?

Gen. CARTER. We can not select them. They volunteer for the duty and then are detailed by the governor. We try to get single officers, but we can not always do it.

Mr. ANTHONY. The item looks too large to me.

Col. WILSON. Of course, we could make that a little more accurately if we knew how many men would be authorized.

Mr. ANTHONY. You have new language in there "detailed with Army." What is the necessity for the use of that new language there?

Col. WILSON. That is the new law.

PAY OF PROPERTY AND DISBURSING OFFICERS FOR THE UNITED STATES.

Mr. ANTHONY. For pay of property and disbursing officers for the United States, \$62,500.

Col. WILSON. Yes, sir.

Mr. ANTHONY. What is the meaning of that item?

Col. WILSON. The disbursing officers provided for in the act of June, 1916, get pay according to the strength of the units. The \$62,500 is allowed for a fair increase over the present strength of the National Guard and does not take into consideration the 238,000 men.

RATE OF COMPENSATION OF DISBURSEMENT OFFICERS.

Mr. ANTHONY. You mean the officer of the National Guard who makes its disbursements for the pay of the guard is paid out of the fund?

Col. WILSON. Yes; that is his compensation for that work. He is also in charge of the property and equipment.

Mr. CRAMTON. What is the rate of compensation?

Col. WILSON. That varies from \$750 a year up to a State having a full division, for instance, getting \$3,000.

Mr. CRAMTON. Fixed by statute or fixed by regulation?

Col. WILSON. Regulations.

Mr. ANTHONY. \$3,000 what? .

Col. WILSON. A year.

Mr. ANTHONY. For a disbursing officer?

Col. WILSON. Yes, sir.

Mr. ANTHONY. Does not the National Guard have within itself disbursing officers?

Col. WILSON. That is the one I speak of, sir.

Gen. CARTER. This is a representative of the Federal Government in the State designated by the Secretary of War from amongst the National Guard officers as the United States disbursing officer in the State of Kansas or the State of Missouri.

Mr. ANTHONY. Is he kept all the year?

Gen. CARTER. Yes, sir.

Mr. CRAMTON. Do they not already have one employed by the State who could very easily perform these duties without an expense of \$3,000 a year to the Government?

Gen. CARTER. This man is under heavy bond and is responsible for all the property sent to the State and has to account for it, and he pays the item of traveling expenses and various things, so he is the disbursing officer for the Federal Government.

Mr. CRAMTON. That might all be so, but I think you are generous in your compensation.

Gen. CARTER. Well, the disbursing officers think quite otherwise, I assure you.

Mr. CRAMTON. Of course.

Col. WILSON. Under the old conditions, when they had the State disbursing officers it was very unsatisfactory from the Federal viewpoint.

Gen. CARTER. The payment of this officer is provided for in the law. I just want to call your attention to it.

Mr. CRAMTON. For instance, in the State of Michigan can you tell me the name of your disbursing officer and what his position is with the National Guard?

Gen. CARTER. We can give you that.

Col. WILSON. Maj. Le Roy Pearson.

Mr. CRAMTON. He is the quartermaster general of the State troops?

Col. WILSON. Yes, sir.

Mr. CRAMTON. And draws a salary from the State also?

Col. WILSON. I suspect so. I do not know that positively.

Mr. ANTHONY. He draws an annual salary under the National Guard act?

Col. WILSON. Yes, sir.

Mr. ANTHONY. And this pay for disbursing officer is in addition to his regular salary as National Guard officer?

Col. WILSON. Yes, sir; in other words, if he goes to camp he would get his pay as a National Guard officer.

Mr. ANTHONY. And he gets so much per annum as disbursing officer?

Col. WILSON. Yes, sir.

Mr. CRAMTON. What is his salary?

Col. WILSON. At present \$750 a year as far as disbursing officer is concerned.

Mr. CRAMTON. And eventually running up to \$2,000 or \$3,000!

Col. WILSON. I do not think Michigan is allotted sufficient troops to justify that.

Mr. CRAMTON. But having various onerous duties as quartermaster general of the State National Guard he can not, perhaps as a person, perform these duties or the clerical portion of them, and I suppose the State of Michigan has to provide the clerks that really perform the work while he draws the pay from the Federal Government.

Col. WILSON. Of course, the Federal Government looks to him to carry on and perform his duties. What arrangement he makes with the State I do not know.

Mr. CRAMTON. I have a very high regard for Maj. Pearson, but I am just questioning it as a matter of policy.

Gen. CARTER. Would you be interested in hearing the law in regard to the payment of these officers?

Mr. ANTHONY. Yes.

Gen. CARTER (reading):

SEC. 67. APPROPRIATION, APPOINTMENT, AND DISBURSEMENT OF FUNDS FOR THE NATIONAL GUARD.—* * *

The governor of each State and Territory and the commanding general of the National Guard of the District of Columbia shall appoint, designate, or detail, subject to the approval of the Secretary of War, The Adjutant General, or [act of July 9, 1918, Bul. 43, 1918, p. 47] an officer of the National Guard of the State, Territory, or District of Columbia, who shall be regarded as property and disbursing officer of the United States. He shall receipt and account for all funds and property belonging to the United States in possession of the National Guard of his State, Territory, or District and shall make such returns and reports concerning the same as may be required by the Secretary of War. The Secretary of War is authorized, on the requisition of the governor of a State or Territory or the commanding general of the National Guard of the District of Columbia, to pay to the property and disbursing officer there as much of its allotment out of the annual appropriation for the support of the National Guard as shall, in the judgment of the Secretary of War, be necessary for the purposes enumerated therein. He shall render, through the War Department, such account of Federal funds intrusted to him for disbursement as may be required by the War Department. Before entering upon the performance of his duties as property and disbursing officer he shall be required to give good and sufficient bond to the United States, the amount thereof to be determined by the Secretary of War, for the faithful performance of his duties and for the safe-keeping and proper disposition of the Federal property and funds intrusted to his care. He shall, after having qualified as property and disbursing officer, receive pay for his services at a rate to be fixed by the Secretary of War, and such compensation shall be a charge against the whole sum annually appropriated for the support of the National Guard: *Provided*, That when traveling in the performance of his official duties under orders issued by the proper authorities he shall be reimbursed for his actual necessary traveling expenses, the sum to be repaid a charge against the allotment of the State, Territory, or District of Columbia: *Provided further*, That the Secretary of War shall cause an inspection of the accounts and records of the property and disbursing officer to be made by an inspector general of the Army at least once each year: *And provided further*, That the Secretary of War is empowered to make all rules and regulations necessary to carry into effect the provisions of this section.

He is the property officer and disbursing officer for the Federal Government in that State.

Mr. CRAMTON. This is a matter of cooperation between the State and the Federal Government?

Gen. CARTER. Yes, sir.

Mr. CRAMTON. The aim of which should be to secure the greatest degree of efficiency in the National Guard for the smallest possible expenditure?

Gen. CARTER. I agree with that.

Mr. CRAMTON. Wherever it is possible for an officer to serve jointly both interests he should do it, and it should not be the aim to provide as fat salaries as possible for that kind of service?

Gen. CARTER. No, but this officer must give bond which amounts in the aggregate to from \$40,000 to \$60,000.

Mr. CRAMTON. He does not pay the expense of that, does he?

Gen. CARTER. Yes: he does.

Mr. CRAMTON. Out of the amount he has fixed, or does the State supply it?

Gen. CARTER. The State provides it sometimes, but we do not know how that is done, except he gives bond, and his duties are at the present time quite onerous, because we are shipping to him a great deal of property for which he has to account. He must receive it from the railroad company and see that it gets to the troops.

Mr. CRAMTON. I will guarantee this, that every one of these officers is already drawing a salary for his full time from his State, and that any portion of his time that is taken up in the performance of his Federal duties, the State must provide additional clerical help to take care of his State duties, so what other time is taken by the Federal Government is at the expense of the State, and at the same time he is drawing a very large salary from the Federal Government, which is simply a duplication of salary?

Gen. CARTER. Well, our difficulty lies in the fact we have imposed this duty on the man, and if he is merely a State official we can not force him to accept it.

Mr. CRAMTON. But the relations between your bureau and the State should be such that you could secure cooperation on a reasonable basis and that you could secure the services of this same man, whose time is already fully paid for by the State, for a more or less nominal salary.

Gen. CARTER. Well, in the present day it seems to me that \$750 is nominal.

Mr. CRAMTON. That, however, General, is your minimum?

Gen. CARTER. Yes, but it is practically what they are all getting now, because the number of troops in any State is not——

Mr. CRAMTON. But very speedily the salary goes up to \$3,000 for an officer whose time is already paid for by the State?

Gen. CARTER. It will only go to \$3,000 in a very few States when they have 40,000 or 50,000 men in the National Guard, as they will have in such States as Pennsylvania and New York. It does not jump to that size in States like Michigan and other States that will not reach a full division.

Mr. SLEMP. There is nothing in the law that on the part of the National Government in any way directs the selection of that individual by the State.

Col. WILSON. It is by the governor.

Mr. SLEMP. The governor might select a man who gets no State salary?

Mr. ANTHONY. It is optional with you how much you pay him?

Gen. CARTER. It is fixed by regulation.

Mr. SLEMP. I think Mr. Cramton is right.

Gen. CARTER. We would be very glad if they would serve for nothing, but you can not compel them to do it.

GENERAL EXPENSES, EQUIPMENT, AND INSTRUCTION, NATIONAL GUARD.

Mr. ANTHONY. For general expenses, equipment, and instruction. National Guard, you are asking for \$1,119,250, and the appropriation for the present year is \$697,304. Has all of that amount been expended so far?

Col. WILSON. No, sir.

Mr. ANTHONY. How much?

Col. WILSON. I can give you those figures in that statement.

Mr. ANTHONY. About how much?

Col. WILSON. A little more than half, sir.

(Amount expended \$234,000.)

Mr. ANTHONY. Will you spend the rest of it between now and June 30?

Col. WILSON. I think so, sir.

Mr. ANTHONY. What does this item cover?

Col. WILSON. It covers quite a number of items, Mr. Anthony, which largely can not be prorated on the \$238,000 and \$125,000, because they are sort of overhead charges and would not be largely reduced in proportion to the strength of the guard.

Mr. ANTHONY. What are they?

Col. WILSON. General expenses, equipment, and instruction, National Guard (fiscal year 1922), 238,950 men, at \$10 per man. \$2,389,500.

Items.	Estimated by Militia Bureau.	Allowed chief of finance.
Blank forms and publications.....	\$300,000	\$231 90.
Travel expenses, P. and D. O.....	10,000	4 00
Rental target ranges.....	100,000	65 00
Purchase target ranges.....	250,000	11 00
Construction, improvements, etc., target ranges.....	500,000	234 00
Transfer supplies within State.....	25,000	12 00
Travel expenses, surveying officers.....	10,000	4 00
Rental, construction, and repairs, shooting galleries.....	25,000	12 00
Markers and scorers.....	250,000	11 00
Caretakers on rifle ranges.....	100,000	65 00
Prizes and entrance fees.....	10,000	4 00
Incidental expenses.....	100,000	65 00
Printing, general orders circulars, forms, etc.....	50,500	27 00
Oil, gas, and repairs motor equipment and tanks ¹	650,000	374 00
Amount reserved for new units.....	100,000	65 00
	2,340,500	1,119 25

¹ Proposed allowance of gas, oil, repairs, etc., for training use of motor equipment and tanks issued to the National Guard from surplus stores of the Army, such allowance to be limited to 1½ hours prescribed periods and 15 days encampments.

Mr. ANTHONY. How much of it for that purpose?

Col. WILSON. We are working out tables now based on the actual number of training hours for the National Guard.

Mr. ANTHONY. Do you pay for the gasoline used in the trucks of the National Guard?

Col. WILSON. We have not allowed anything up to date. Mr. Anthony, but in working out this table we were a little reticent about issuing them because of the insufficiency of the current appropriation.

Mr. ANTHONY. So the expenditure is not completely itemized?

Col. WILSON. Will you have it put in the record, or shall I read it to you?

Mr. ANTHONY. Just generally so we can get the idea.

Col. WILSON. Blank forms and publications, \$200,000; traveling expenses, property, and disbursing officers, \$10,000; rental target ranges, \$100,000; purchase target ranges, \$250,000.

Mr. ANTHONY. What does that mean, that you are actually going to buy that number of target ranges?

Col. WILSON. We have bought in the past tracts of land for target ranges in States, the title vesting in the United States, of course.

Mr. ANTHONY. You would have the authority to purchase real estate under this, then?

Gen. CARTER. No, sir; we have to come to you in any particular case where we wish to get that authority.

Col. WILSON. Under the recent act of Congress.

PURCHASE OF TARGET RANGES.

Mr. ANTHONY. You say \$250,000 for the purchase of target ranges

Col. WILSON. Yes, sir.

Mr. ANTHONY. If we gave you this full amount would you use that money for the purchase of target ranges?

Col. WILSON. That is uncertain. Of course, if we got an opportunity to get an advantageous site we would probably consider it.

Mr. ANTHONY. But you say we have to come to Congress for this authority?

Gen. CARTER. Yes. It is sometimes far more economical to purchase a piece or tract of ground than to keep renting from year to year, and in that case we might ask authority to purchase the ground, but, as I understand the law at present, we can purchase no real estate except by express authority.

Mr. CRAMTON. This would be for training the individual units?

Gen. CARTER. It would belong to the United States and be used by the National Guard units.

Mr. CRAMTON. And not for State maneuvers?

Col. WILSON. They will also be available for use by rifle organizations, and any other organizations that should be encouraged in rifle practice, and by the United States Army for practice.

Mr. ANTHONY. What are the other principal items?

Col. WILSON. Transportation and supplies within the State, \$25,000; travel expenses of surveying officers, \$10,000; rental, construction, repairs, shooting galleries, \$25,000; markers, and scorers, \$250,000; caretakers of rifle ranges, \$100,000. Prizes and entrance fees, incidental expenses, printing general orders, circulars, forms, etc., and miscellaneous items of \$100,000, making the total as stated.

TRAVEL OF FEDERAL OFFICERS AND NONCOMMISSIONED OFFICERS IN CONNECTION WITH THE NATIONAL GUARD.

Mr. ANTHONY. For travel of Federal officers and noncommissioned officers in connection with the National Guard you ask for \$185,525. You had \$30,462 for that purpose for the current year. Has that been expended?

Col. WILSON. It has been expended a little more than the pro rate amount for the six months past. In other words, about three-fourths of its has been spent, and it is very doubtful what we can do the rest of the year. Most of the annual inspection has not been had as yet. It is among the items that should be left at the original figure, we submit. We feel the present appropriation is not sufficient for the year, and that the estimate submitted by the War Department for \$185,525 will not be sufficient for next year.

Mr. ANTHONY. And that is based on 125,000 men in the National Guard?

Col. WILSON. That is based on the number of officers of the Regular Establishment traveling in connection with the National Guard. It might not be in proportion to the strength of the National Guard.

REPAIR OF FEDERAL PROPERTY ISSUED TO THE NATIONAL GUARD.

Mr. ANTHONY. For repair of Federal property issued to the National Guard you ask \$10,000. That is a new item.

Col. WILSON. That is a nominal item for repair of ordnance equipment where men are sent from United States arsenals because they are skilled in that work.

Mr. ANTHONY. It also covers repairs made locally?

Col. WILSON. Made locally at the station of the National Guard, yes, sir.

TRANSPORTATION OF SUPPLIES.

Mr. ANTHONY. For transportation of supplies you ask for \$300,000. You had \$182,772 the current year.

Col. WILSON. Yes, sir.

Mr. ANTHONY. What is the state of that appropriation?

Col. WILSON. That appropriation for the current fiscal year is practically intact to date because we have not received the accounts which are to be paid by the zone finance officer in the city here.

Mr. ANTHONY. Will it all be used in the current year?

Col. WILSON. I think so without a doubt, and I think the appropriation for next year should be left at our original figure of \$500,000.

Mr. ANTHONY. But it is \$300,000 in the bill.

Col. WILSON. \$300,000 submitted. It was reduced by the War Department.

Mr. CRAMTON. Does that include equipment as well as supplies?

Col. WILSON. It is mainly for equipment.

Mr. CRAMTON. Then the word "supplies" is a little narrow, does not include artillery pieces and heavy pieces of that kind?

Col. WILSON. Yes, sir.

Mr. CRAMTON. Is this a constant item, or is it just going to be a large amount of that kind for a year or two?

Col. WILSON. The latter.

Mr. CRAMTON. For a year or two?

Col. WILSON. Yes, sir.

Mr. CRAMTON. If you had \$500,000 this year, what would you need next year do you suppose, not binding you in any way? With the \$500,000, in other words, provide for the transportation of principal equipment in the way of artillery and the heavy items.

Col. WILSON. I should say offhand it would to a large extent. Allowing for the theory that eventually we shall reach a peak in the organization of the National Guard.

Mr. CRAMTON. Of course, if you do not get \$500,000 this year you will ask for more than you otherwise would next year?

Col. WILSON. Yes, sir.

EXPENSES, SERGEANT INSTRUCTORS.

Mr. ANTHONY. For expenses, sergeant instructors, you ask for \$75,000, and this year the appropriation was \$45,692. Is that to be all expended?

Col. WILSON. That is overobligated at the present, allowing for the rest of the year; yes, sir; from the simple fact that the high cost of living has struck them as it has struck all of us.

Mr. ANTHONY. What do you furnish them?

Col. WILSON. Quarters, heat, and light.

Mr. ANTHONY. Quarters, heat, and light only?

Col. WILSON. Yes, sir; with a small amount for medical attendance.

Mr. ANTHONY. How many sergeant instructors have you detailed now?

Col. WILSON. I will have that furnished for you.

NOTE.—Two hundred and twenty-seven to date.

Mr. CRAMTON. Do you provide any restrictions as to quarters?

Col. WILSON. The regulations say they should be obtained at about \$30 a month. They are old regulations, and we have never changed them, hoping it would drop back, but it has not dropped back, and in many instances we have found it absolutely essential to allow \$40 and as high as \$47.50 for quarters, heat, and light for sergeant instructors.

Mr. ANTHONY. Do you supply one for each company?

Gen. CARTER. No; usually one for each battalion.

Mr. ANTHONY. How with officer instructors?

Gen. CARTER. We send one to each regiment or one to each independent battalion. If there is any battalion of infantry not part of a regiment we send one to them.

Mr. ANTHONY. So each State would have several officer instructors?

Gen. CARTER. Yes; the larger States.

Col. WILSON. I might add 800 sergeant instructors, and allowing medicine and medical attendance is how we arrive at that figure.

Mr. ANTHONY. How many officer instructors do you intend to have on duty with the National Guard next year?

Gen. CARTER. It would depend on the number of units organized, and we can never foretell what that would be.

Mr. SLEMP. On the basis of 125,000 men that you have in mind for next year?

Gen. CARTER. You asked about officers?

Mr. ANTHONY. Officers.

Col. WILSON. I will have that put in the record, Mr. Anthony.

NOTE.—One hundred and one on duty at present.

OFFICE RENT, ETC., INSPECTOR-INSTRUCTORS.

Mr. ANTHONY. For office rent, and so forth, inspector-instructor \$15,000. You had \$9,140 this year. Has all that been used?

Col. WILSON. It probably will be used within the year.

Gen. CARTER. We do not rent offices for them when we can get the State to furnish them.

Mr. ANTHONY. Are there any States which refuse offices to the inspector-instructors in State buildings?

Gen. CARTER. There are some States that say they absolutely can not furnish them. Texas is one. They have not completed the armories in many instances and have no place to accommodate the officers.

Mr. ANTHONY. Are there any States that refuse to give them a desk in the office of the adjutant general?

Gen. CARTER. They have shown every desire to cooperate, but some of them have no place where desks can be put. Their units are newly organized, and they have not the place necessary to put an officer. Only in those cases do we pay rental.

Col. WILSON. In other instances the facilities are inadequate.

Mr. CRAMTON. Inasmuch as some of the States have the available quarters, if you furnish quarters in those States where they say they have not available quarters very speedily they will all say they have not quarters.

Gen. CARTER. But we go into that matter very thoroughly.

Mr. CRAMTON. If the States have not quarters, why not let them provide quarters?

Gen. CARTER. We can not force them to appropriate money and we want this officer to go and do his work. We have directed these officers to urge the State to furnish their quarters where possible.

Mr. CRAMTON. Furnishing the man and going to the expense are doing under this bill you would be very likely to secure the acceptance of such a policy?

Gen. CARTER. Yes, sir; we have found they are willing to do so where they have the accommodation.

PAY OF NATIONAL GUARD (ARMORY DRILLS).

Mr. ANTHONY. For pay of National Guard (armory drills) you ask for \$12,346,588. There is appropriated \$7,532,927 the current year. What is that appropriation based upon?

Col. WILSON. Our original estimate is based upon 238,000 men and the figures as submitted by the War Department are based upon 125,200 men. I might say that we endeavored to arrive at a grand average on that, but it was impossible to tell what strength the guard would start off with on July 1, and how the additional increments would come in later on, so we figured on the actual cost for 238,000 for the entire year, but in the reduction of the figures to \$12,346,588 that would take care for the entire year of 125,200 men.

Mr. ANTHONY. How many men did the \$7,532,927 take care of during the current year?

Col. WILSON. That was theoretically based upon 125,000 men, and we have not expended it to date and probably will not during this year.

Mr. ANTHONY. How much of a balance will there be in that?

Col. WILSON. That depends largely upon the units that are recognized between now and June 30.

Mr. ANTHONY. Do you think there will be a considerable balance there?

Col. WILSON. I would hesitate to say how considerable a balance, Mr. Anthony, but there will be a balance undoubtedly.

NOTE.—Approximately \$1,272,632 balance.

Mr. ANTHONY. When was the last National Guard pay day?

Col. WILSON. When were they actually paid?

Mr. ANTHONY. Yes; and what date are they now to be paid?

Col. WILSON. I think it varies in a number of States; some of the States have not been paid for a year or more, though, for back pay.

Mr. ANTHONY. Why?

Col. WILSON. Upon statements of alleged differences between the State authorities and paying officers as to the preparation of sufficient rolls. I omit the question where they apparently did not quality, but there are cases where the States question that. But we are settling the matters day by day; they are gradually being cleaned up.

Mr. ANTHONY. Could you put a statement in the record showing the dates to which the different States are paid up at the present time and the amount of money of the current year's appropriation that has been used up to date?

Col. WILSON. It would be impracticable for the bureau to do it, Mr. Anthony, because we do not handle the pay there. It is handled by the corps area.

Mr. ANTHONY. Have you got it, Gen. Lord?

Gen. LORD. The record I have here paid and expended as shown on the allotment roll \$3,000,000. There has been more than that paid. I know they have had difficulty getting the rolls.

Mr. ANTHONY. Up to what date?

Gen. LORD. January 6. The payments are made at the headquarters of the corps area all over the country.

Mr. ANTHONY. In your judgment will the full amount of \$7,000,000 be used?

Gen. LORD. I think it will.

Mr. ANTHONY. Now, will you insert in the record there the rates of pay allowed under the law for the National Guard? Does this item include the pay of officers as well as men?

Grades.	Drill pay per drill for officers and enlisted men belonging to organizations.	Maximum drill pay per annum for officers and enlisted men (60 drills).	Maximum pay for each drill.
Colonel.....	\$10.415		\$1.737
Lieutenant colonel.....	9.72		1.62
Major.....	8.333		1.389
Captain.....	6.666	\$440.00	7.333
First lieutenant.....	5.555	373.33	6.111
Second lieutenant.....	4.722	283.33	5.185
Master sergeant.....	2.40-6/9	144.00	2.40
Technical sergeant or first sergeant.....	1.766	106.00	1.766
Staff sergeant.....	1.50	90.00	1.50
Sergeant.....	1.30	90.00	1.30
Corporal.....	1.23-3/4	74.00	1.23
Private, first class.....	1.16-6/9	70.00	1.16
Private.....	1.00	60.00	1.00

¹ Includes \$240 additional, authorized only for captain commanding organizations.
Sections 109 and 110 of the national-defense act, as amended, provide for compensation for attendance at armory drills for all enlisted men and officers of organizations of the National Guard below the grade of major at the rate of one-thirtieth of the monthly base pay of their grades for each drill attended, subject to certain restrictions. Compensation for officers above the grade of captain is fixed at not more than \$400 per year and officers below the grade of major not belonging to organizations receive four-thirtieth of the monthly base pay.

Col. WILSON. Yes, sir.

Mr. SLEMP. Let us check up there just a little; 125,000 men and a total pay amounting to 15 days.

Gen. CARTER. No; they get armory pay for each drill they attend and they get that based on the theory they will have at least 48 drills per year, but they are authorized to have 60 drills per year and pay them for that number.

Mr. SLEMP. The best way would be for you to itemize that \$12,346,588?

Col. WILSON. As to how we arrive at that?

Mr. SLEMP. Yes, sir. Haven't you that before you in the record?

Col. WILSON. Yes, sir.

Mr. SLEMP. Will you read it off on the basis now of 125,000 men?

Col. WILSON. Well, our estimates were on the basis of 238,000 men and will be pro rated. We base this on the possibility of 60 drills.

Mr. SLEMP. What will one drill for 125,000 men cost?

Col. WILSON. I do not have it that way. I had the captains, first lieutenants, second lieutenants, all the officers at the average rate that qualify for maximum pay, and the same with enlisted men, and the two together would total the estimate.

Mr. SLEMP. Please give us an itemized statement of the \$12,346,588 pay of National Guard for armory drills. That is based on the maximum of drills per year for each unit, which is 60 drills.

*Estimated amount required for drill pay, 1922.***Officers:**

Captains (organized) ($2,499 \times \$10.66\frac{2}{3} \times 60$).....	\$1, 599, 260. 64
First lieutenants (organized) ($1,503 \times \$5.55\frac{1}{2} \times 60$).....	500, 949. 90
Second lieutenants (organized) ($3,000 \times \$4.77\frac{1}{3} \times 60$).....	858, 960. 00
Above captains (not organized) ($1,437 \times \$450$).....	646, 650. 00
Below majors (not organized) ($2,184 \times \$266.66$).....	582, 275. 44
Total.....	<u>4, 188, 095. 38</u>

Enlisted men:

First grade ($840 \times \$2.46\frac{2}{3} \times 60$).....	124, 286. 40
Second grade ($1,959 \times \$1.76\frac{2}{3} \times 60$).....	207, 575. 64
Third grade ($3,009 \times \$1.50 \times 60$).....	90, 810. 00
Fourth grade ($16,125 \times \$1.50 \times 60$).....	1, 451, 250. 00
Fifth grade ($16,524 \times \$1.23 \times 60$).....	1, 219, 471. 20
Sixth grade ($62,679 \times \$1.16\frac{2}{3} \times 60$).....	4, 385, 022. 84
Seventh grade ($127,191 \times \$1.00 \times 60$).....	7, 631, 460. 00

Total..... 15, 109, 876. 08

Grand total..... 19, 297, 971. 46

Ten thousand six hundred and twenty-three officers multiplied by the rate of pay per drill multiplied by the maximum number of drills equals \$4,188,095.38; 228,327 enlisted men multiplied by the rate of pay per drill multiplied by the maximum number of drills equals \$15,109,876.08; grand total, \$19,297,971.46.

The estimated amount, \$19,297,971.46 (based on a strength of 238,900 men) was reduced by the War Department to \$12,346,588, such reduction being based on a strength of 125,000 men.

Col. WILSON. Sixty drills?

Mr. SLEMP. And you had 48 drills this year; is that right?

Col. WILSON. The 48 drills is the minimum.

Mr. SLEMP. Did you have 48 drills this year?

Col. WILSON. I could not say as to all organizations, but I should say yes. I can not answer that positively.

Mr. SLEMP. I will ask you this. When you requested \$7,532,927 for 100,000 men, how do you get \$12,346,588 for 125,000 men, being only 25 per cent greater?

Col. WILSON. Well, in the latter case it would be for a longer period. In other words, we started with 50,000 last July and we are increasing the National Guard all the time.

Mr. SLEMP. Then the seven million was not for 100,000 men?

Col. WILSON. It was based on the theory of allowing for that fact I have just stated, that the Guard was increasing right along.

Mr. SLEMP. What is the average?

Col. WILSON. The average as to what, sir?

Mr. SLEMP. The average number of men constituting your pay of \$7,532,927.

Col. WILSON. About 73,000 men offhand.

Mr. SLEMP. In other words, about \$100 per man?

Col. WILSON. Yes, sir.

Mr. CRAMTON. Colonel, as I understand it, your estimate is based on the minimum number of drills for your estimated organization of 248,000?

Col. WILSON. No, sir; not the \$12,000,000. We estimate \$19,000,000 for the 238,000 men.

Mr. CRAMTON. The \$12,000,000 then is figured on the maximum number of drills for what sized organization?

Col. WILSON. One hundred and twenty-five thousand.

Mr. SLEMP. About \$100 a man is what it amounts to?

Mr. ANTHONY. You have a proviso here that all the moneys heretofore appropriated for the Army, equipping and training of the National Guard shall be disbursed and accounted for as one fund.

Col. WILSON. Yes, sir.

Mr. ANTHONY. Did you find that essential?

Col. WILSON. Absolutely; yes, sir.

Mr. ANTHONY. What is the argument for it?

Col. WILSON. The argument for it is that it is practically impossible to divorce the regular estimates as a fact, because we do not have an established strength to begin with; it varies.

Mr. ANTHONY. So you want to have an opportunity if you are short one item to make it up on another item?

Col. WILSON. Yes, sir; and as far as my observation has gone I have been very conscientious about that.

Mr. CRAMTON. How would you construe it? Suppose the committee should feel that the item of \$300,000 for transportation supplies was more than we wanted to authorize this year—

Col. WILSON. Yes, sir.

Mr. CRAMTON. And suppose we cut that item as it appears in the bill to \$200,000. Suppose we allow your item of \$12,346,588 for National Guard armory drills, and then if it developed during the year that your estimated strength of the National Guard should fall short and you only have 100,000 or some number smaller, so that you have \$2,000,000 left in that item, would you feel authorized to take \$100,000 or \$500,000 or \$1,000,000 out of that surplus and devote it to transportation of supplies, Congress having indicated that it thought \$200,000 would be enough for transportation of supplies?

Col. WILSON. With that proviso in I should say, yes, sir.

Mr. CRAMTON. Here are two classes of items, one the pay of the National Guard for armory drills, which is a thing that really neither you nor Congress has control over, because the National Guard is authorized to hold their drills in accordance with law and they have got to be paid, but due to the mere fact that the National Guard is not organized as rapidly as you anticipate there might be a balance of two or three million dollars, and some other item in which a matter of policy was involved, Congress having pronounced upon a policy holding you down to a small amount, would you feel justified in taking this balance out of an item where no question of policy entered and using it in defiance of the expressed policy of Congress?

Col. WILSON. No, sir; because there is a question of policy as far as the bureau is concerned. We would not take an advance for supplies out of pay if we could get it out of general expense.

Mr. CRAMTON. When it comes to the transportation of supplies there comes in a question of policy as already has appeared, and if the National Guards are furnished on the basis referred to this morning there might be a variation in that item from \$200,000 to \$2,000,000. Congress would be absolutely opposed to the use of \$2,000,000, and under your basket clause you could take the surplus remaining, if any, for pay for armory drills and use it in defiance of the expressed will of Congress.

Gen. CARTER. The principal necessity for that comes from the fact: In endeavoring to train the National Guard and get that to the point where they will be of as much value as possible we

them to school, they serve in the field, we given them various kinds of instruction. We can not tell the number of men we will have and what the conditions will be, so if you limit us too strictly to these different items, we can not meet the conditions as they arise.

Mr. CRAMTON. I see that, General, but by that basket clause Congress signs away its birthright.

Gen. CARTER. I think you can trust us to keep within the limitations on each item.

Mr. CRAMTON. I merely took transportation of supplies as an illustration. There might be others. For instance, this pay for your disbursing officers. You can treble the pay of those officers notwithstanding we may fix a certain item here; in other words, we say take this money and spend it as you wish.

Col. WILSON. There is a requirement which makes us report each year what items we do take from one appropriation and apply to another.

Mr. CRAMTON. Yes; that is true.

Col. WILSON. And the record will show right along it has never been abused as far as I know.

Mr. ANTHONY. As far as my observation has gone it has never been abused in any of these items of the National Guard, but instances have come before our committee where it has been very much abused.

Mr. CRAMTON. Maybe the language is different in different places, but this same question has been asked by other members of the committee in connection with different bureaus, and it seems to me that some of the bureaus have felt a little differently about it than others.

Gen. CARTER. Yes, sir.

Mr. CRAMTON. I want to get the attitude of this bureau.

Gen. LORD. May I make a statement in line with that?

Mr. ANTHONY. Yes, sir.

Gen. LORD. It just happens that pay of the Army is one example and the National Guard another example. Turn to page 83 of the Medical Department—if you are going to apply this restrictive legislation to the National Guard you should apply it to other bureaus of the War Department. If you will turn to the Medical Department you will find many items which make up the total appropriation. Estimates in amounts have been submitted to make up the total, but the amount for each item is not included in the bill. You should not apply to the National Guard restrictions you do not apply to the other branches of the War Department.

Mr. CRAMTON. General, you can correct me if I am wrong, and it is very easy for me to be wrong on a subject I know as little as I do about this. Some one branch quoted to us, as I recall, a decision of the Judge Advocate General, or the comptroller, or somebody, to the effect that where we had specified an amount to a certain person they would not feel justified under the basket clause in using more than that amount for that purpose. Am I correct as to that?

Gen. LORD. I was not here; I did not hear that.

Mr. CRAMTON. If so, I wonder whether the Militia Bureau knew of that ruling and would be governed by it?

Gen. LORD. I speak particularly of pay of the Army, comparing that with the National Guard. There has been no such decision affecting pay of the Army or National Guard.

Mr. CRAMTON. Is there any decision, Gen. Lord—and you are particularly familiar with these things—is there any ruling or decision by the Judge Advocate General or the comptroller or any other supervisory authority that would prevent the Militia Bureau from taking an unexpended balance of \$2,000,000 out of the item here for pay of the National Guard, armory drills, and applying it to transportation of supplies, we having indicated here in the bill the amount for the purpose of transportation of Army supplies.

Gen. LORD. I know of no such decision. I have an impression that whoever—I did not hear that statement, and do not know who made it, but during the war——

Mr. CRAMTON. I may have misquoted him.

Gen. LORD. During the war there was submitted by the Construction Division—then I think it was the Cantonment Division—a question as to whether or not the moneys appropriated for certain purposes could be used for construction, because at that time the construction and other appropriation items were under one blanket provision. The comptroller decided that those construction moneys could not be utilized in the manner desired. The decision had no reference at all to the National Guard items, and is not applicable. I will insert a copy of the decision in the record.

TREASURY DEPARTMENT,
Washington, September 28, 1918.

A D 2672.

The honorable the SECRETARY OF WAR.

SIR: By your authority I have a letter dated September 23, 1918, from the Chief of the Construction Division of the Army, in which decision is requested whether expenditures are authorized from the consolidated fund entitled "General appropriations, Quartermaster Corps," for shooting galleries and ranges, in excess of the amount specifically appropriated for that purpose.

The act of July 9, 1918 (40 Stat., 865), provides that the money appropriated under various titles such as "Subsistence of the Army," "Regular supplies, Quartermaster Corps," etc., shall be disbursed and accounted for by officers and agents of the Quartermaster Corps as "General appropriations, Quartermaster Corps," and for that purpose shall constitute one fund.

The language of the act does not mean that the money appropriated under the various titles named shall constitute one fund for all purposes but only for the purpose of disbursement and accounting. It is not meant that an amount greater than the gross appropriated for shooting galleries and ranges may be expended for that purpose.

Respectfully,

(Signed) W. W. WARWICK, Comptroller

Mr. CRAMTON. My inquiry had not reference particularly to the bureau. The whole question is in my mind as different bureaus have come before us, and I see very clearly what the need is for some discretion in that direction.

Gen. LORD. Yes.

Mr. CRAMTON. On the other hand, I think I can see very clearly that that discretion ought not to be any broader than is absolutely necessary, and my impression is that this language is broader than Congress should use.

Col. WILSON. May I ask a personal question?

Mr. ANTHONY. Yes, sir.

Col. WILSON. What should we do if all the money was not gone for armory drills and we needed money for transportation?

Mr. CRAMTON. If the deficit that faced you was the result of a moderate policy that was in accordance with the views of Congress would like you to be able to meet that thing, but if the deficit was ..

that was caused by an expansion of your policy to a point which you knew was beyond that which Congress contemplated—for instance, you have no idea of using \$2,000,000 next year for transportation of equipment—I am satisfied of that—and we cut it to \$250,000, and probably a little further, clearly indicating our purpose, I do not think you ought to have the authority to use \$2,000,000 out of one item to bring that item of transportation of equipment up under a new policy.

Col. WILSON. Do you not think the responsibility for the expansion you speak of beyond the immediate needs would be on a par with the responsibility for taking some other money for a different purpose?

Mr. CRAMTON. I do not want to offend the general or you gentlemen, and do not want to think it is anything directed to you; it is a question I have in mind as to the whole system, and I gathered from rumors before I had anything to do with military appropriations that sometime somebody in the War Department has taken advantage of the authority in the law to do things that Congress did not want done.

Mr. SLEMP. Suppose Congress appropriated for the minimum drills, 48, just taking a chance on that instead of 60, they can not get the money unless they do the minimum drilling, can they?

Col. WILSON. No.

Mr. SLEMP. Now, suppose Congress appropriated for the minimum, but these people went ahead and did the maximum drilling, you do not have any control of that, do you?

Col. WILSON. No; that is voluntary.

Mr. SLEMP. If we appropriated for the minimum and they did the maximum, necessarily there would be a deficit?

Gen. CARTER. We can not pay it.

Mr. SLEMP. You could not pay it, but you would have to go to Congress and explain that here was an emergency situation that arose that you could not control and require Congress to appropriate for the deficit?

Gen. LORD. Yes.

Mr. SLEMP. That would very be simple. Now reverse the process. Suppose we appropriated for the maximum number of drills and you only had the minimum number, there would be a lot of money left loose and under this provision you could take that money and use it for other purposes as you saw fit?

Gen. LORD. I think the guaranty of the fact we would not do that——

Mr. SLEMP. This has not personal application——

Gen. LORD. I understand.

Mr. SLEMP. But that would be possible?

Col. WILSON. I think the fact we have had this organization for two years and have not abused it would be sufficient on that.

Mr. SLEMP. I think you have done very well, but these deficits do not occur from any emergency work, but from what the War Department has considered the normal working of its departments.

Col. WILSON. It was really intended in the first place to cover mainly five items of traveling expenses. Up to the present time, the present year, we have had the five classes of travel authorized, five subheads, all intermingling. That was confusing. It was impossible to foresee the needs of those five requirements proportionately. Sometimes this item would be greater than we needed and this would be less, and one of the main purposes of that particular proviso was to

gather up into one item those five items of travel, and we have had occasions where it has been absolutely required that we take a small amount of money from one subhead and apply it to another subhead.

Mr. CRAMTON. You understand, as a new member of this committee I have in my mind this proposition as affecting the whole bill: What would happen if language of that kind were carried with a further proviso that any stated item in the bill should not thereby be increased more than 10 per cent or 15 per cent or 20 per cent.

Col. WILSON. As far as I know it would be perfectly satisfactory.

Mr. CRAMTON. It might give you the leeway you want.

Col. WILSON. Yes, sir.

Mr. CRAMTON. And still not leave the door I have spoken about wide open?

Col. WILSON. I agree with you on that.

Mr. SLEMP. I think all bureaus ought to be treated like that.

Col. WILSON. That would take care of our needs. I will take the responsibility for saying that.

PAY OF THE ARMY.

Gen. LORD. I wish to say a word about Pay of the Army. I think that is the most striking illustration. An enlisted man stationed overseas has three factors entering into his pay. There are certain statutory provisions of pay. His base pay is fixed by law. His longevity pay is fixed by law; his foreign service pay is fixed by law. We make the closest approximation possibly of the amount needed for the shifting personnel on each of those items, the total amount per man for foreign service, the same with longevity pay, the same with base pay. A man is stationed in Manila. If we made a mistake in calculating the amount of base pay and were restricted and not allowed to operate under the combining clause at the end of the appropriation, we would find ourselves possibly at the end of the year unable to pay the man his base pay, but would be able to pay him his foreign-service pay and longevity pay. Eventually, however, you must make a deficiency appropriation to pay every penny due that man, because his pay is fixed by statute, and we can not pay him one penny more than he is entitled to. The bookkeeping that would result from elimination of the authority to interchange pay of the Army in this National Guard appropriation and in similar appropriations would be overwhelming.

ARMS, UNIFORMS, EQUIPMENT, ETC., FOR FIELD SERVICE, NATIONAL GUARD.

Mr. ANTHONY. For arms, uniforms, equipment, etc., for the service of the National Guard you are asking \$40,000,000 for the next fiscal year, and you had an appropriation of \$8,000,000 during the current year. How does this item differ from the previous year?

Col. WILSON. Necessarily, the supplies we are getting free these years are dwindling, and we have to pay for more, because there will be a surplus next year, according to the information we have received from the supply service.

Mr. ANTHONY. The first paragraph is for the arming and equipping of the National Guard, and the next paragraph takes care of the wear and tear and replacement.

Col. WILSON. The idea, Mr. Chairman, was that all the equipment would come out of the second paragraph.

Mr. ANTHONY. Ultimately?

Col. WILSON. Yes, sir.

Mr. Sisson. I notice that all of the language seems to be cut out in this print of the bill.

FOR PROCUREMENT AND ISSUE OF PUBLIC PROPERTY TO THE
NATIONAL GUARD FOR FIELD SERVICE.

Mr. ANTHONY. We have just put in two lines for procurement and issue of public property to the National Guard for field service. I would like to have you explain the reason for that.

Col. WILSON. It is for simplification of the language and concentration of all appropriations for equipping in one item.

Mr. ANTHONY. According to the wording of that language, will you be able to buy any new equipment outright?

Col. WILSON. Yes, sir.

Mr. ANTHONY. Buy it from the bureaus of the War Department?

Col. WILSON. Yes, sir.

Mr. ANTHONY. You do not go into the open market and buy anything out of this appropriation?

Col. WILSON. No, sir; unless it was procured for us by the Army in the open market, because they did not have any stock, which might be possible.

Mr. ANTHONY. But it is still the property of the Federal Government, is it?

Col. WILSON. Absolutely.

Mr. ANTHONY. As is all the property of the National Guard?

Col. WILSON. Yes, sir; unless we sell to the States for cash under the provision in the act of June 3.

Mr. ANTHONY. What is the reason for this tremendous increase in the item?

Col. WILSON. The \$8,000,000 was simply a tentative allotment of an amount last year, on a possibility. I do not think it was based on any calculation whatever because of the possibility of lack of knowledge as to the availability of surplus stores.

Mr. ANTHONY. You evidently do not feel that you will get much equipment from regular sources, which was surplus, during the next year?

Col. WILSON. That is the information we have from the supply bureaus. We asked for \$40,000,000 last year and we got \$8,000,000.

Mr. ANTHONY. Tell us what the main items are that you propose to procure.

Col. WILSON. There would be clothing——

Mr. ANTHONY. Can you group them under general items, so that the main items would occupy less than a typewritten page?

Col. WILSON. We can do that.

Mr. ANTHONY. And also give us an explanation of the general items.

Col. WILSON. Yes, sir.

GENERAL ARTICLES WHICH ARE REPORTED NOT TO BE SURPLUS AND WHICH MUST NECESSARILY BE PURCHASED.

Clothing and equipage.
 Ordnance articles of personal equipment.
 Signal equipment and supplies.
 Medical equipment and supplies.
 Pistols.
 Spare parts for ordnance equipment.
 Air service equipment.
 Engineer equipment and supplies.

Gen. CARTER. I would like to say, Mr. Chairman, that in arriving at that we have had to do some guessing. We do not know accurately, nor do the supply departments, just what articles will be surplus and can be issued without charge, and we estimated that certain items would have to be purchased, and that they would cost about the present rates, although in the matter of such articles as uniforms, woolen clothing, the price has been increased, and we made the item large enough so that we would be able to equip the guard of the strength we anticipated.

Mr. ANTHONY. But you want to drop out this language:

That the Secretary of War is directed to issue from surplus stores and material now on hand and purchased for the United States Army such articles of clothing and equipment and Field Artillery material and ammunition as may be needed by the National Guard organization under the provisions of an act entitled "An act for making further and more effectual provisions for the national defense, and for other purposes."

Col. WILSON. We put that in as an alternate proposition because—

Mr. ANTHONY (interposing). But you have dropped all of that authority out of the bill.

Col. WILSON. If it would be found that there is a surplus of an equipment such as we can get free, we would be willing to take it.

Mr. ANTHONY. Would you have authority under the law to issue it without this language?

Col. WILSON. No, sir.

Mr. ANTHONY. So we had better keep that language in the bill, had we not?

Col. WILSON. Yes, sir; if we can get free issue.

Mr. SISSON. You would purchase that which they did not declare surplus and hold in reserve? Would they sell that to you?

Gen. CARTER. Oh, yes; and then replace it.

Mr. SISSON. The only way the money ever comes back into the Treasury is to have the stuff declared surplus?

Gen. CARTER. Yes, sir.

Mr. ANTHONY. What about this proviso, "That members of the National Guard who have or shall become entitled for a continuous period of less than one month to Federal pay at the rates fixed for the Regular Army, whether by virtue of a call by the President, or attendance at school or maneuver, or of any other cause, and whose accounts have not yet been settled, shall receive such pay for each day of such period; and the 31st day of a calendar month shall not be excluded from the computation." Heretofore the National Guard has had difficulty in securing adjustments of pay on the same basis on which you pay the Regular Army.

Col. WILSON. I should say that that should be included in some fixed statute.

Mr. ANTHONY. Otherwise you would have the same difficulty with regard to the pay of the guard?

Col. WILSON. Yes, sir.

Mr. CRAMTON. The item says "for field service." Keeping in mind what was said by Gen. Carter this morning about the purposes of equipment issued, that is to say, for drill and instruction purposes rather than for active field service, what would you think of changing the words "field service" to "field maneuvers" or some other language that would not be quite so broad?

Gen. CARTER. The National Guard is sent into camp for 15 days every year under as nearly field service conditions as we can get.

Mr. CRAMTON. That is an instruction camp?

Gen. CARTER. Yes, sir; it is instruction. If the States desire to use the National Guard they are authorized under the law to do so at any time. As a matter of fact at the present time the entire National Guard of the State of Alabama is on duty in the mine region down there under actual field conditions, so we have to equip them for that purpose.

Mr. CRAMTON. That brings up this question: If they should be on constant duty during the year there would be a consequent wearing out of equipment, clothing, etc. Is that constantly replaced by the Federal Government?

Gen. CARTER. Yes, sir.

FOR CLOTHING AND EQUIPAGE.

Mr. CRAMTON. The State government would stand no expense of equipment, clothing, etc., that was worn out while being used in a strictly State service?

Gen. CARTER. They have voluntarily replaced a good deal of it; but we figure that since the law requires that the National Guard shall be equipped at the expense of the Federal Government, we should replace that equipment, even though it is worn out while being used in strictly State service.

Mr. ANTHONY. In a State, does the State government not pay the expense?

Gen. CARTER. The State government pays for taking care of the men and the wear and tear on the equipment is borne by the Federal Government.

Mr. ANTHONY. Col. Wilson, can you tell us whether you have spent all of the \$8,000,000 appropriated for this purpose for the present fiscal year?

Col. WILSON. We have actually transferred in settlement about \$3,000,000. That was merely for clothing and equipage. How much more will be expended during the next five months I could not say definitely, but probably it will be at the same ratio. As far as ordnance equipment is concerned, we have received no accounts showing that we should pay anything. But I should say we have obligated ourselves for not over half of the appropriation thus far. Just what the amounts are and what they will be during the five months I could not say.

Mr. ANTHONY. You will put an itemization of the estimate in the record?

Col. WILSON. Yes, sir.

Mr. ANTHONY. Is this estimate of \$40,000,000 based upon a contemplated strength of the National Guard of 126,000?

Col. WILSON. Yes, sir.

Mr. ANTHONY. And it is based upon the furnishing of very little material from surplus?

Col. WILSON. Yes, sir.

Mr. Sisson. What will be the largest item of expenditure under this estimate for this item?

Col. WILSON. We have to buy all but heavy ordnance material. In that case it was free and surplus. Then organizational equipment is a pretty heavy expense in some instances.

Mr. Sisson. What does the ordnance material consist of?

Col. WILSON. It consists of the 155-millimeter howitzers, the 75-millimeter guns, rifles, and side arms in general.

Mr. Sisson. With the enormous quantity of that stuff on hand unless the Army is holding on to it too tightly, it seems to me you ought to get all you need without additional expense.

Gen. CARTER. We do in the heavy ordnance, but there are some articles like mess equipment or the individual soldier's equipment, things of that kind, which are rapidly worn out in service, of which we have none now in serviceable condition, and we may have to pay for some of that.

Mr. Sisson. A great deal of that stuff was not used. I do not know how much has been declared surplus; but we were making preparations as rapidly as possible to fully equip 2,000,000 men to be sent over to France. I do not know whether all of that was delivered that was contracted for, or how far they went in stopping the manufacture and delivery, but there ought to be a great deal of that stuff on hand because I imagine a great deal of it was delivered to the Army. Of course, you are not responsible for that, but I imagine there is a great deal being withheld now that might be better used.

Gen. CARTER. They are trying to find out exactly what they have and they are disposed to deal entirely fairly with us. But the trouble is that they have it so congested in the warehouses that they do not know which is serviceable and surplus and which is not. I can tell you about shoes, for instance. I was in command at Camp Meade, where we had a storehouse full of shoes, and the majority of those shoes were what they called salvaged shoes, which had been turned in and remade. They were good enough for wear in the field, but you cannot issue them to a national guardsman. He does not want a pair of patched up shoes. So we have asked now for a supply of new shoes, and the Quartermaster General says we have to buy, and we have used a portion of the \$8,000,000 for that purpose.

Mr. Sisson. I expect the shoe proposition was the one that was most pressing because of the materials out of which they were made being scarce. That necessitated the reconstruction of the old shoes. But with equipment other than shoes they have no such trouble.

Gen. CARTER. No.

Mr. Sisson. I imagine if the Army would be rather liberal with the Treasury we might avoid buying a great deal of stuff for the National Guard.

Gen. CARTER. Frankly, this is just the difficulty we come up with. The Army authorities claim that that word "surplus" applies to what is in addition to the needs of the Army for its current use.

for a necessary reserve. The size of that reserve is a debatable question. In the matter of ammunition, when we tried to get some for the National Guard, we were told we could not get it as free issue, because considering the amount necessary for reserve and the amount necessary for their current needs they do not have any surplus. But I saw the Chief of Staff about that and he directed the ammunition to be issued.

Mr. ANTHONY. It is very evident that the Army has more ammunition than it could possibly use in a great many years, has it not?

Gen. CARTER. I suppose that is what the Chief of Staff thought.

Mr. Sisson. During the debate on the floor of the House on the legislative, executive, and judicial appropriation bill the other day there was a statement read by a Member that was rather startling. He read an extract from a paper and that charged that there was something like four or five billion dollars worth of this property. I think that is an exaggeration. But it might be very materially exaggerated and still the Army might insist on holding a good deal of it.

Mr. ANTHONY. A good deal of that which is being held in reserve could very reasonably be declared surplus for the purposes of the National Guard.

Gen. CARTER. I am not sure as to that. That is what we are trying to find out. We have striven in the Militia Bureau to do everything possible to secure permission for the utilization of everything that might be utilized for the National Guard. They had large quantities of motor equipment, and under the law we were not authorized to buy motor equipment at all for the actual units, and I asked the Secretary of War recently for enough of this for the National Guard that we contemplated we would get in the next two years, realizing that if we had to go out and buy it it would cost a great deal and that we would get a very small return from any that might be sold. He did make that reservation and issue into the States where they were able and would agree to keep it in proper storage.

Mr. Sisson. I think that is a very proper use to make of the surplus, but what I fear—and you have nothing to do with that except as it may affect you in getting what you want—I fear a policy has been adopted by the Army officials that, if Congress knew exactly what they had on hand, would not be at all indorsed by Congress. They have so many articles that will deteriorate in the keeping, not only in the use, but simply in the keeping. It seems to me that is extremely bad business. As members of the Committee on Appropriations know, we have made every effort, except the appointment of a special committee to go out and make inventories of this stuff, to be able to get them to report to us what they have on hand. We commenced that over a year ago, and they continue to report that they have not yet determined what may or may not be surplus. I have a lurking suspicion that they want to hold too much of it. If there ever was a time when the Treasury needed a little relief it is at this hour.

Mr. ANTHONY. On page 113 you have an item for the purpose of manufacturing Field Artillery matériel for the National Guard which you want omitted from the bill for 1922. You have no further use for it?

Col. WILSON. Principally with the idea of getting this free equipment, we were eliminating that and putting the different minor items in the general items.

Mr. ANTHONY. Last year there was an appropriation of \$100,000 for this item simply to keep the item in the bill, and now you say there is no longer any necessity for it.

Col. WILSON. No, sir.

TUESDAY, JANUARY 11, 1921

CIVILIAN MILITARY TRAINING CAMPS.

STATEMENT OF MAJ. DANIEL I. SULTAN, GENERAL STAFF

Mr. ANTHONY. Major, you are in charge of civilian military training?

Maj. SULTAN. I am in the branch of the General Staff that is in charge of it.

Gen. LORD. Mr. Chairman, in connection with this item, there was appropriated for the current fiscal year \$250,000. There has been no amount allotted and no expenditure up to date.

Mr. ANTHONY. You are asking this year for \$3,000,000?

Maj. SULTAN. Yes, sir.

Mr. ANTHONY. How did you arrive at that sum as being the proper amount to expend for civilian military training during the fiscal year 1922?

Maj. SULTAN. By the number of students we would like to have at the training camps.

Mr. ANTHONY. Will you tell us briefly the class of men you propose to train under this heading, how the camps are organized, how the attendance is secured, etc.

Maj. SULTAN. Citizens' military training camps will be established and maintained under the authority contained in section 47 of the national defense act as amended by the act of June 4, 1920.

In general, their purpose is to train warrant officers, noncommissioned officers, and privates of the Regular Army, the National Guard, and the Organized Reserve, and such civilians as may be selected upon their own application with a view to their appointment as reserve officers or as noncommissioned officers of the Organized Reserve, if found qualified.

COURSES OF TRAINING.

These objects will be accomplished by a series of three courses known as "The red course," "The white course," and "The blue course."

The objects of the red course are

(a) To perpetuate the interest of the youth of the country in the importance of military training both as an asset in the problem of national defense and as a benefit to the individual taking the training.

(b) To show the public by actual example that camp instruction of the kind contemplated will be to the liking of their sons.

develop them physically, mentally, and morally; will teach Americanism in its true sense thus stimulating patriotism and self-discipline, resulting in its true sense national strength—both civil and military.

(c) To qualify young men for enlistment in the Reserves.

Applicants must have average general intelligence and must have the temperament desirable for a soldier. No educational qualifications are prescribed or required.

The scope of the instruction for the red course is as follows:

(a) Elementary and uniform training and instruction for all students, which will include the duties of the private in the school of the soldier, squad, and company; small-arms rifle practice; guard duty; camping and marching; individual cooking; care of equipment; personal hygiene; physical development; discipline and morale.

(b) Elementary instruction in the duties of a private in the branch of his choice.

The objects of the white course are:

(a) To qualify selected privates of the Organized Reserves as non-commissioned officers, so that they will be capable of training recruits in the duties of privates and of leading them in active service.

(b) To provide preliminary training for candidates for commission in the Officers' Reserve Corps.

(c) To provide advanced military training for those civilians who have completed the red course or who have had equivalent training.

QUALIFICATIONS.

Qualifications for admission to the white course are as follows:

Any physically fit enlisted man of the Organized Reserves who has passed his nineteenth birthday and who is not over 45 years of age and is recommended by his commanding officer is eligible. Candidates must be of good moral character and must possess qualities of leadership. Vacancies unfilled from the above source will be filled by designating civilians between the ages of 19 and 46 years who apply, and who have had prior military training in the red course or its equivalent.

The scope of instruction for the white course includes specialized instruction in the duties of a noncommissioned officer in the branch of the Army selected by the candidate.

The objects of the blue course are to provide more advanced training for warrant officers and selected noncommissioned officers of the Regular Army, National Guard, and Enlisted Reserve Corps, and civilians with a view to their appointment as officers of the Reserve Corps if found qualified.

The qualifications for admission to the blue course are as follows:

Any physically fit noncommissioned officer of the Regular Army, National Guard, and Enlisted Reserve Corps who has passed his twenty-first birthday and who has not reached the maximum age specified in regulations governing the appointment of reserve officers is eligible. In no case will a candidate be accepted who is over 45 years of age. Civilian candidates will not be accepted unless there are unfilled vacancies from the other sources. All candidates must have had prior training in the red and the white courses or their equivalents.

The scope of the blue course is to give specialized instruction in the duties of a junior officer in the branch of the Army selected by the candidate and for which he is considered qualified.

It will be noted that the camps are democratic; any boy or young man who is physically fit, has average intelligence, and is of good moral character can attend the camps. He is not required to be a student in a selected college or school. He need never have attended school at all, in order to attend the camps. The programs of instruction for the white camp, and more especially for the blue are such that the student must have had mental training, but he does not have to be a "college men."

Advancement to the noncommissioned and the commissioned grades in the Organized Reserves are open to any man who comes to the camp and demonstrates his ability to command men and to complete the course. If he has had no prior military training or experience, he must enter the red camp, if he has had some prior military training or service, he may enter the white or the red camp. An applicant not already in the military service, must be examined physically before he will be accepted. This examination can be had free of charge by applying to any Army medical officer who is stationed near his home, or he may be examined at his own expense by a civilian doctor, if he so desires. The Government pays his transportation to and from the camp; provides him with a uniform feeds him; furnishes medical attention; provides laundry service and gives him a month of outdoor life which will benefit him physically and make him a better citizen.

There will be at least one camp in each corps area. The camp will be conducted during the month of July.

Mr. ANTHONY. I take it from what you have outlined that you think it necessary to provide for voluntary military training for any man of proper age who asks for it?

Maj. SULTAN. Yes.

Mr. ANTHONY. The language which you propose says "For furnishing, at the expense of the United States, to warrant officers, enlisted men, and civilians attending training camps," etc. Does that mean that you are going to take warrant officers and enlisted men already in the service and give them further training?

Maj. SULTAN. Further training in the duties of a commissioned officer.

Mr. ANTHONY. So you will take a certain selected class of enlisted men and warrant officers from the Regular Army and give them the opportunity to command and instruct these classes in training?

Maj. SULTAN. Yes, sir. We will also take warrant officers and noncommissioned officers of the National Guard and the Organized Reserves and train them for commissions.

Mr. ANTHONY. At the same time you would be using them as instructors of the men who have had no previous military training?

Maj. SULTAN. During the red camp.

Mr. ANTHONY. How long?

Maj. SULTAN. That camp is of one month's duration. A man with absolutely no military training or experience would of course enter the red camp. He is then upon the completion of the course at that camp qualified to enter the white camp, and if found qualified he is given a certificate stating that he is considered qualified for the duties of a noncommissioned officer in the Organized Reserve.

LOCATION OF CAMPS.

Mr. ANTHONY. Have you determined the location of these camps during the next fiscal year?

Maj. SULTAN. There will be at least one camp in each of the corps areas. There are several considerations that we have taken into account. It is necessary that they be located near the centers of population for the civilian candidates in order to reduce transportation charges.

Mr. ANTHONY. You are taking advantage of the existing military facilities?

Maj. SULTAN. Yes; they will all be located at military stations of the Regular Army, and especially those stations where we have the best facilities for giving the training. We want organizations of the Regular Army for administrative purposes and for use in connection with the training programs of the students.

Mr. ANTHONY. That would mean that you would have approximately nine of these civilian training camps?

Maj. SULTAN. At least nine. We propose to have in some corps areas, especially the ninth, where the traveling involved would be very great, more than one.

Mr. ANTHONY. The Ninth Corps Area is on the Pacific coast?

Maj. SULTAN. Yes; that is on the Pacific coast.

Mr. ANTHONY. What is the largest number of these camps you have held heretofore?

Maj. SULTAN. We had two just before the war, at one time.

Mr. ANTHONY. They were the ones at Plattsburg and Fort Sheridan?

Maj. SULTAN. There was one at the Presidio in San Francisco. Perhaps there were three; I will not be sure about that. I know there were two at one time.

Mr. ANTHONY. Have you the items for this proposed expenditure?

Maj. SULTAN. Yes, sir. It works out in round figures \$100 per man. The details show \$95 per student.

Mr. ANTHONY. How many men do you plan to train?

Maj. SULTAN. Thirty thousand.

Mr. ANTHONY. Your total is arrived at by multiplying \$95 by 30,000?

Maj. SULTAN. I took it at \$100 in round numbers instead of \$95.

STATEMENT OF PROPOSED EXPENDITURES.

Mr. ANTHONY. Can you furnish for the record an itemized statement of the figures, showing the total amounts you propose to expend under each subheading?

Maj. SULTAN. Yes, sir.

(The statement is as follows:)

Transportation of students to and from camps: Allowance, 5 cents per mile; average miles travel, for round trip per student, 350 miles; $350 \times 0.05 = 17.50$ per man; $30,000 \times 17.50$	\$525, 000
Subsistence at camp: Rate, 75 cents per day per student, $0.75 \times 31 \times 30,000$	697, 500

3. Transportation of equipment to and from camp:

Average weight of equipment per man—	Pounds.
Clothing.....	23.32
Tents.....	3.99
Personal arms.....	20.29
Ordnance.....	34.00
	<hr/>
	81.60

$81.60 \times \text{factor of safety} = 100; 100 \times 30,000 = 1,500 \text{ tons} \times \$15 \dots$

4. Gallery practice ammunition: 200 rounds per man; $200 \times 30,000 \times 0.125$.

5. Ordnance equipment, including overhauling small arms, machine guns, field artillery, etc.....

6. Clothing:

1 hat, service.....	\$2.07
1 hat cord (red, white, blue).....	.10
2 breeches, cotton, O. D.....	3.40
2 shirts, O. D., flannel.....	7.00
1 tie, black.....	.23
1 belt, waist.....	.23
1 leggins, spiral puttee, pair.....	2.20
2 shoes, marching, pair.....	9.80
2 insignia.....	.20
1 jumper, working, denim.....	1.56
1 trousers, denim.....	1.60
1 hat, denim.....	.42
1 coat, O. D., cotton.....	1.96
	<hr/>
	30.77

$\$30.77 \times \text{factor of safety} \times \$32.90; \$32 \times 30,000 \dots$

7. Overhauling and repairing accoutrements, equipment, and camp and garrison equipage.....

8. Camp supplies and cleaning materials:

Office equipment and supplies per 100 men.....

Cleaning materials per 100 men.....

9. Medical and hospital supplies, 75 cents per man.....

10. Laundry service per man, \$3.50.....

11. Advertising and advertising literature and incidental expenses necessary in recruiting.....

12. Incidental expenses, not otherwise accounted for.....

Total for 30,000 men.....

TRANSPORTATION.

Mr. ANTHONY. Roughly speaking, you will expend how much transportation out of this appropriation?

Maj. SULTAN. \$525,000.

Mr. ANTHONY. Could you cut that down any by providing creased number of camps so that the amount of the aggregate would be less?

Maj. SULTAN. Yes, sir. You will note there that we have p-average travel per student at a round trip of 350 miles. I based upon an actual study of the map, with the centers of p-tion worked out together with the location of the camps w-l-have facilities for the best training.

Mr. ANTHONY. Still, with nine camps, many of these m-travel as much as a thousand miles, will they not?

Maj. SULTAN. There will be more than nine camps. Th-l-probably be about 15. I said at least one in each corps area

Mr. ANTHONY. Of course, I can see the advantage of conc-ing these men in large camps for training purposes, but with t-e-l-having facilities for training scattered all over the United

would it not be more economical to increase the number of camps and to cut down the transportation of the men and the transportation of supplies and all that sort of thing?

Maj. SULTAN. It would be more economical; yes, sir. That must be balanced against the advantage of having these men at camps where the facilities for training are best.

METHOD OF TRAINING.

Mr. ANTHONY. How large are the organizations you put them into after you get them in the camps?

Maj. SULTAN. They will be in companies of 150 men.

Mr. ANTHONY. You do not go any higher than the company? Do you organize them into regiments?

Maj. SULTAN. Yes, sir; we do organize them into regiments if we have a sufficient number of men at one time for that purpose, but it is done that way more for administrative purposes than anything else. They would not have many maneuvers or problems as a regiment, but for administrative purposes and for the few ceremonies they would be called out for they would be organized in regiments.

Mr. ANTHONY. You really give them instruction in the school of the soldier?

Maj. SULTAN. In the red camp.

Mr. ANTHONY. And in company drill and organization.

Maj. SULTAN. In the red camp they will have their elementary instruction in Infantry drill, rifle marksmanship, the duties of a sentinel, guard duty, camping, and marching, while on the marches we will teach them how to make up packs, camp and march discipline, individual cooking, etc.

Mr. ANTHONY. You give them the Infantry drill first?

Maj. SULTAN. Yes, sir. We propose to make the red camp an Infantry camp, that is, we teach them the fundamentals of the duties of a soldier, no matter what his assignment may be later, or what branch of the service he might desire to go into. We are going to give him the fundamentals of an Infantry soldier's training first.

Mr. ANTHONY. Then do you try to broaden out and take up the technical branches for instruction?

Maj. SULTAN. In the white camp we begin to specialize. A man who wants to be in any particular branch specializes in the white camp, and then specializes further in the blue camp.

Mr. ANTHONY. Infantry instruction is the basis of the instruction at these camps?

Maj. SULTAN. Yes, sir.

COST OF RATION.

Mr. ANTHONY. How do you figure subsistence; what is the total amount for that?

Maj. SULTAN. The unit is 75 cents per day per student. The total amount is \$697,500.

Mr. ANTHONY. That is based on the costs of the ration, and the incidental cost of its preparation?

Maj. SULTAN. We propose to use the Regular Army cooks and Regular Army personnel as far as possible. In some cases we may have to have a few civilian mess attendants, but the number will be very small.

Mr. ANTHONY. On what basis of cost of the ration have you made your estimate?

Maj. SULTAN. Fifty cents.

Mr. ANTHONY. And if the ration should cost 42 cents you would save that much?

Maj. SULTAN. There would be a corresponding reduction.

Mr. ANTHONY. What is the greatest number of men you have had in training heretofore in a series of summer camps?

Maj. SULTAN. During the war, of course, we had more in camps than ever before.

Mr. ANTHONY. That would not be a proper basis to figure on. Before the war we had some of these camps, did we not?

Maj. SULTAN. Yes, sir.

Mr. ANTHONY. What is the greatest number we ever had in the camps before the war?

Maj. SULTAN. About 10,000, I would say, not having the exact figures with me.

Mr. ANTHONY. Do you feel quite sure you will be able to have 30,000 men in those camps?

Maj. SULTAN. We do; yes, sir.

Mr. CRAMTON. What percentage of those will be men now in the Regular Service?

Maj. SULTAN. The number will be very small. Most of them will come from the Organized Reserve or will be civilians who desire to go into the Organized Reserve and have had no prior military training. These will be the young men around the age of 17 and 19 years, who were not old enough to take part in the war and who want to come into the Organized Reserve. They will also come from other sources.

Mr. ANTHONY. The War Department is asking us to make provision also for the training of the Organized Reserve. Will this conflict with that work?

Maj. SULTAN. The law requires that a man shall have some military training before he can be enlisted in the Organized Reserve. So the first step, or the red camp, will give him the military training necessary for him to enlist in the Organized Reserve.

Mr. ANTHONY. You plan that the men will graduate from the civilian training-camp instruction into the Organized Reserve?

Maj. SULTAN. Yes, sir. A man will finish the red camp as a private. He will then go into the white camp, and when he completes the course in the white camp he may become a noncommissioned officer.

Mr. ANTHONY. Does he agree when he enters one of these camps to enter the Organized Reserve?

Maj. SULTAN. No, sir; we do not propose to require a promise from him that he will go into the Organized Reserve.

Mr. ANTHONY. Are you asking for an appropriation for the purchase of any new equipment?

PURCHASE OF EQUIPMENT.

Maj. SULTAN. Nothing that is on hand for the Regular Army. There are one or two small items, such as gallery practice ammunition, which is probably the biggest of them. All gallery ammunition would have to be purchased for these camps because there is none on hand.

Mr. ANTHONY. Is that the .22 caliber ammunition?

Maj. SULTAN. No, sir; we propose to use the reduced charge with the service rifle. That will make it unnecessary for us to purchase rifles. There are no .22-caliber rifles on hand, but plenty of service rifles are on hand.

Mr. ANTHONY. Can the Ordnance Department manufacture that ammunition?

Maj. SULTAN. They can; yes, sir. It will be manufactured by the Ordnance Department as heretofore, and we will get it much cheaper this year because they will be able to use a great deal of salvaged material. We have estimated the cost of this ammunition to be a cent and a quarter per round.

Mr. ANTHONY. That will have to be manufactured especially for the use of these camps?

Maj. SULTAN. Yes, sir.

CLOTHING.

Mr. ANTHONY. Under the heading of clothing you are going to furnish each man with a complete uniform outfit?

Maj. SULTAN. With the essential articles; yes, sir.

Mr. ANTHONY. That is their summer equipment?

Maj. SULTAN. That is their summer equipment; yes, sir.

Mr. ANTHONY. You figure, according to your table, that it will cost \$30.77 per man?

Maj. SULTAN. Yes, sir.

Mr. ANTHONY. What becomes of that equipment after the close of the camp?

Maj. SULTAN. It is salvaged.

Mr. ANTHONY. It is returned to the Government?

Maj. SULTAN. Yes, sir.

Mr. CRAMTON. Does that mean that that equipment must all be purchased, or will it be transferred to you from storage? You have about \$1,000,000 in that item.

Maj. SULTAN. If the clothing is on hand we will use it; if not, we will have to manufacture clothing.

Mr. ANTHONY. Could you use salvaged clothing for that purpose?

Maj. SULTAN. We would prefer not, sir.

Mr. ANTHONY. Why?

Maj. SULTAN. The use of salvaged clothing is open to question, I think, in time of peace.

Mr. CRAMTON. The use of a million dollars is also open to question.

Maj. SULTAN. The salvaged clothing is used, but the students in these camps come in and get one month of military training. Their pride and their morale demand that they be started off with a pretty good outfit.

Mr. CRAMTON. So they will wear a uniform for a month and turn it in. Where does it go then?

Maj. SULTAN. It will be salvaged for whatever use the Government can put it to.

Mr. CRAMTON. It will be reissued to somebody in the Regular Service?

Maj. SULTAN. It will be in the stock of clothing for any purpose.

Mr. ANTHONY. We were informed that the Army had discontinued issuing clothing to the troops, so that would probably mean it would be sold, would it not?

Maj. SULTAN. I am not familiar with the uses they put the salvaged clothing to.

OVERHAULING AND REPAIRING, ACCOUTERMENTS, ETC.

Mr. ANTHONY. How much would the item for overhauling and repairing, accouterments, equipment, and camp and garrison equipment amount to?

Maj. SULTAN. About \$150,000.

Mr. ANTHONY. What do you have to overhaul and repair?

Maj. SULTAN. All of the tentage that is used and all of the camp and garrison equipage.

Mr. ANTHONY. You are assuming that it will reach you in damaged condition?

Maj. SULTAN. No, sir; that it will reach us in good condition, but that it will have to be repaired and cleaned and overhauled before it is returned to storage. We propose to use equipment now in storage and which must be returned to storage again.

Mr. ANTHONY. You figure that the wear and tear on it will be very much?

Maj. SULTAN. Yes, sir, that will include cleaning blankets, laundrying pillowcases and repairing broken cots and tentage that become worn or torn. All of the equipment used will be taken from the supply which the Government has on hand and it has been returned to storage in serviceable condition.

Mr. ANTHONY. You are asking about \$30,000 for camp supplies and cleaning material.

Maj. SULTAN. That includes mops, brooms, brushes, soap and grease and greases used in cleaning their accouterments, rifles, etc.

MEDICAL AND HOSPITAL SUPPLIES.

Mr. ANTHONY. You are asking for \$22,500 for medical and hospital supplies.

Maj. SULTAN. Yes, sir.

Mr. ANTHONY. Do you use that amount of medical and hospital supplies during the period when camps are in operation, or do you simply want to have them on hand?

Maj. SULTAN. That estimate is based on the rate of 75 per cent per man. Some of the men will require less and some more.

Mr. ANTHONY. Why would you have to purchase that material? Why could not that be issued to you out of existing stores?

Maj. SULTAN. The law requires, as I read the national defense law, that the special appropriation for these camps must bear that expense.

Mr. ANTHONY. If we were to put a provision in the Army appropriation bill that you should have the use of such supplies as are available, we would not have to appropriate for some of these items.

Maj. SULTAN. No, sir.

Mr. ANTHONY. How much is the total amount you are asking for laundry service?

LAUNDRY SERVICE.

Maj. SULTAN. The laundry service will be about \$3.50 per man on an average:

Mr. ANTHONY. That will run about \$100,000?

Maj. SULTAN. \$105,000.

Mr. ANTHONY. That will be done by contract, I suppose?

Maj. SULTAN. Where Government laundries are available it will be done by Government laundries. Where they are not available it will be done by contract, the same as in the case of the Regular Army.

ADVERTISING LITERATURE AND RECRUITING.

Mr. ANTHONY. You propose to expend about \$60,000 for advertising literature?

Maj. SULTAN. And for recruiting.

Mr. ANTHONY. That is, recruiting the men for these camps?

Maj. SULTAN. Yes, sir.

Mr. ANTHONY. Have you any figures you can give us to show what the expenditure for this purpose was in time of peace?

Maj. SULTAN. Most of it was done by the civilian Military Camps Association, an organization of civilians who are interested in the so-called Plattsburg camps.

Mr. ANTHONY. Does that organization still exist?

Maj. SULTAN. It does.

Mr. ANTHONY. You will have their cooperation in this work?

Maj. SULTAN. Yes; we will have their cooperation, but they are not very optimistic about the assistance they can give us in recruiting for the camps, as far as funds are concerned. They had a great deal more money when they did that before than they have now.

Mr. ANTHONY. You consider the work to be done in the civilian military training camps a real asset toward military preparedness?

Maj. SULTAN. I think so; yes, sir.

NUMBER OF CAMPS.

Mr. CRAMTON. How many camps of different kinds does the War Department contemplate? Taking the whole thing into consideration, how many different kinds of camps will be in operation?

Maj. SULTAN. There will be the Reserve Officers' Training Corps camps, then there will be camps for the National Guard, and there will be camps for the Organized Reserve.

Mr. CRAMTON. To what extent will those be conducted together, or will they be entirely separate?

Maj. SULTAN. They will all be separate. The Reserve Officers' Training Corps, as conducted in the past, had a junior camp and a senior camp. The junior camp was for students in the junior division of the Reserve Officers' Training Corps, principally high-school students, and the senior camp was conducted for the college men. There will be no junior camp next year, but they will all go to our red, white, and blue camps.

Mr. CRAMTON. I do not know whether this is within your information or not, but if this bill should be passed as it comes from the department, how many men would be trained in those four different classes of camps?

Maj. SULTAN. The Organized Reserve is not yet organized.

Mr. CRAMTON. But they figure on that just as if they were organized as I understand it?

Maj. SULTAN. The War Department has estimated for 50,000 men of the Organized Reserve to be called for training during this calendar year.

Mr. CRAMTON. That is one class. You have no Organized Reserve now?

Maj. SULTAN. We have no Organized Reserve right now, and the fastest its organization will be developed I can not say.

Mr. CRAMTON. I mean what does the appropriation asked contemplate in each one of these classes?

Maj. SULTAN. It contemplates 50,000 from the Organized Reserve and the entire National Guard. I estimate that there will be about 120,000 men in the National Guard in July, 1921, but there again may be developed faster.

In regard to the Reserve Officers' Training Corps, Col. Morrow gave you those figures on yesterday. They have 100,000 students in it but that includes the junior units. If you want the number members of the senior units who would be in camp, I would estimate about 6,000 members of the Reserve Officers' Training Corps.

Mr. CRAMTON. That would be 126,000 and 30,000 of these men would be 156,000 whom you would have in training, in addition to the Regular Army?

Maj. SULTAN. About 206,000 in all, but 170,000 of them will be training for only 15 days.

Mr. ANTHONY. I notice you have changed the language of the appropriation. What is the idea of that? Is that for the purpose of conforming with the reorganization act of June 4, 1920, or are you broadening the language?

Maj. SULTAN. I think that restricts it rather than broadens it. It does not, as written, provide for laundry service for these students. We would very much like to see that provided for.

Mr. ANTHONY. As it is now in the bill it does not provide for it.

Maj. SULTAN. No, sir.

Mr. ANTHONY. And in order to make available an amount for the appropriation for laundry, we would have to include the laundry?

Maj. SULTAN. Yes, sir. It would be possible to give laundry service to enlisted men of the Regular Army and the Organized Reserve and the National Guard from the general appropriation but we could not give it to civilians at these camps.

Mr. ANTHONY. Before the war did the men who attended the training camps pay for their own laundry?

Maj. SULTAN. They did, yes, sir.

Mr. ANTHONY. Would that be practicable at this time?

Maj. SULTAN. It would be possible but not desirable.

Gen. LORD. Mr. Chairman, the title of this appropriation is correct. It seems to me all of that first title is unnecessary and

brief title in the reorganization act, it seems to me, would be better—that is, “Training camps” rather than “Civilian military training camps.”

Mr. ANTHONY. You would suggest a change in the title?

Gen. LORD. All of the first three lines should be eliminated. It is incorrect.

Mr. ANTHONY. It does not pertain peculiarly to the Reserve Officers' Training Corps.

Gen. LORD. That is right. There is one other matter that I would like to call your attention to. There is carried under regular supplies in the Quartermaster General's appropriation an appropriation of \$239,544 for the training camps, which was placed in there by the Quartermaster General under direction from the War Department. That is in addition to the amount estimated under the appropriation for training camps.

Mr. ANTHONY. If we make provision for subsistence and regular supplies in this item there would be no necessity for the item you speak of.

Gen. LORD. Yes. I do not think, as they have estimated that they have submitted any estimate for regular supplies.

Mr. ANTHONY. They ask for camp supplies. I suppose that would include the same items?

Maj. SULTAN. No, sir. Camp supplies as shown in this estimate refers to articles such as mops, brooms, and brushes, cleaning materials, etc.

Gen. LORD. Those would be included under regular supplies—various supplies of that character. I do not know the distinction, as to what the expression “camp supplies” would mean.

Col. HANNAY. It does not include several things. It was specifically directed that it should cover heat and light, and things of that kind; but not forage, and things of that nature.

REGULAR SUPPLIES.

Mr. ANTHONY. You have an item of \$239,000 under the heading of “Regular supplies,” and you think that should stand, regardless of any provision here?

Col. HANNAY. Yes, sir; we were specifically informed that it did not cover those items of forage in regular supplies.

INCIDENTAL EXPENSES.

Gen. LORD. Under the item for incidental expenses the Quartermaster General was directed by the War Department to include an estimate of \$125,000 for this purpose.

Would that cover it, Major?

Maj. SULTAN. I think that is in reference to civilian personnel—civilian employees.

Mr. CRAMTON. You do not estimate that the civilian personnel would involve that amount, do you?

■ Maj. SULTAN. No, sir.

BARRACKS AND QUARTERS.

Gen. LORD. The Quartermaster General was also instructed by the War Department to include an estimate of \$125,000 under "Water and sewers, and \$200,000 under "Barracks and quarters" for the training camps.

Maj. SULTAN. That would include heat and light, and water and incidentals, such as lumber, material for the construction of sign bars, trenches, etc. Under section 47d of the reorganization act of June 4, 1920, the Regular Army appropriations are available for the particular purpose.

Mr. ANTHONY. Would it not be better to classify the entire list of expenditures for training camps under one head?

Maj. SULTAN. I think so; yes, sir.

Gen. LORD. The national defense act specifically provides for the supplying of these things under the regular appropriations therefor. I will quote from section 47d of the reorganization act of June 4, 1920, which says:

The Secretary of War is hereby authorized to maintain, upon military reservations or elsewhere, schools or camps for the military instruction and training, with a view to their appointment as reserve officers or noncommissioned officers or such warrant officers, enlisted men, and civilians as may be selected upon their own application to use for the purpose of maintaining said camps and imparting military instruction and training thereat, such arms, ammunition, accoutrements, equipments, tents, field equipage, and transportation belonging to the United States as he may deem necessary; to furnish at the expense of the United States uniforms, subsistence, transportation by the most usual and direct route within such limits as to territory as the Secretary of War may prescribe, or in lieu of furnishing such transportation and subsistence to pay them travel allowances at the rate of 5 cents per mile for the distance by the shortest usually traveled route from the place from which they are authorized to proceed to the camp, and for the return travel thereto, and to make the payment of travel allowances for the return journey in advance of the actual performance of the same, and medical attendance and supplies to persons receiving instruction at said camps during the period of their attendance thereat, to authorize such expenditures from proper Army appropriations, as he may deem necessary for water, fuel, lighting, temporary structures, not including quarters for officers nor barracks for men, heating, and damages resulting from field exercises, and other expenses incidental to the maintenance of said camps; and the theoretical winter instruction in connection therewith; and to sell to persons receiving instruction at said camps, for cash and at a price, plus 10 per centum, quartermaster and ordnance property, the amount of such property sold to any one person to be limited to that which is required for proper equipment. All moneys arising from such sales shall remain available throughout the fiscal year following that in which the sales are made, for the purpose of appropriation from which the property sold was authorized to be supplied at the time for the sale. The Secretary of War is authorized further to prescribe the course of theoretical and practical instruction to be pursued by persons attending the camps authorized by this section; to fix the periods during which such camps shall be maintained; to prescribe rules and regulations for the government thereof; and to employ thereat officers, warrant officers, and enlisted men of the Regular Army in such numbers and upon such duties as he may designate.

Mr. ANTHONY. When we decide upon the amount we want to make available for training camps we should take into consideration the other sums.

Gen. CARSON. May I interject, Mr. Chairman, at this point that all those matters in connection with water and sewers, barracks and quarters, and other operations for the maintenance of the camps come under the Construction Service for attention. We have always found as a rule that any increase in the camps increases the items for those expenditures, for those costs.

Mr. ANTHONY. An increase in the number of camps?

Gen. CARSON. Yes, more or less. They are put in for that purpose, and they will be absorbed with our other appropriations or allotments for this specific purpose and so expended. If we put a certain amount under training camps, that can be used only for that purpose.

Mr. ANTHONY. As you know, there must be available all over the country any number of camps where men could be accommodated for their summer training with very little expense for construction, or water and sewers, or anything of that kind.

Gen. CARSON. Yes.

Mr. ANTHONY. So that if the location of these summer camps was carefully worked out with that in view, would not the expenditure of money for this purpose be largely obviated?

Gen. CARSON. Probably; yes, sir. But the point I am making is that I would rather, so far as the expenditure for operations is concerned, that it would be better to have it under the regular appropriation for this purpose rather than be specifically allotted for this particular purpose.

Mr. ANTHONY. Major, have you consulted, for instance, the Construction Division of the Quartermaster General's Department as yet with the idea of ascertaining where the camps could be located, so that you could save expenses for new construction for water and sewers?

Maj. SULTAN. We have not consulted them on that point directly, but we are familiar enough with the facilities at the camps——

Mr. ANTHONY (interposing). You ought to be, but the proposition was that if you examine into the points you have picked out for camps you would probably find some places where these facilities did not exist. Are you sure of that?

Maj. SULTAN. I am sure that is so for the ones we have in mind. The location of the camps has not been finally determined.

Mr. ANTHONY. At any other points where you have selected the location of the camps, what amounts do you plan to expend for new construction or for remodeling the buildings?

Maj. SULTAN. I do not think anything is necessary, at least for new construction, except for such items as materials for trench construction, or instructional material, as distinguished from construction of buildings.

Gen. CARSON. There is not a camp in the country which does not require more or less in the way of repair if it is going to be used.

Mr. ANTHONY. But for the temporary use of these men for training in the summer it would not require very much, would it?

Gen. CARSON. Not so very much, but there would be repairing of windows and doors, and you have to have the buildings waterproofed. You can only estimate what will be required, but there is a certain large sum. These buildings, Mr. Chairman, were built to last two years, and they have been there more than that now, and they are rapidly going to pieces and will require a good deal for maintenance and repair.

Mr. ANTHONY. I do not know any of them that would not house these men for one month during the summer.

Gen. CARSON. They will, but you would not want to put men in barracks where every time it rains they would get wet.

Mr. ANTHONY. That is the only thing I would want to be sure about that they had a good roof over their heads.

Gen. CARSON. But if there is any apparent duplication the money had better be kept in the regular appropriation and be eliminated from the special one and the necessary phraseology be put in there to authorize us to use the regular appropriation for whatever is required for this special purpose.

WEDNESDAY, JANUARY 19, 1921.

Mr. ANTHONY. I understand representatives of the American Legion desire to make some statements in reference to the subject matter in the Army appropriation bill. We will be very glad indeed to hear you, gentlemen.

CIVILIAN MILITARY TRAINING CAMPS.

STATEMENTS OF MR. JOHN THOMAS TAYLOR, VICE CHAIRMAN NATIONAL LEGISLATIVE COMMITTEE, AMERICAN LEGION; MR. WADE H. HAYES, CHAIRMAN MILITARY AFFAIRS COMMITTEE, AMERICAN LEGION; MR. GREVILLE CLARKE, PRESIDENT MILITARY TRAINING CAMPS ASSOCIATION; MR. A. G. THACHER; DR. HENRY S. DRINKER, PRESIDENT EMERITUS LEHIGH UNIVERSITY; DR. C. I. MANN, AND MR. DE LANCEY KOUNTZE, REPRESENTING THE MILITARY TRAINING CAMPS ASSOCIATION.

Mr. TAYLOR. Mr. Chairman, the question of military preparedness is perhaps closer to the hearts of the members of the American Legion than any one else in this country. At our first convention in Minneapolis we went into the matter very thoroughly, and as a result a military affairs committee appeared before Senator Wadsworth's committee and Chairman Kahn's committee on the Army reorganization bill. We again considered it at Cleveland, at our subsequent convention. Now the question comes of appropriations to carry into effect a military policy under the Wadsworth bill, and our committee, appointed in Cleveland, consisting of Chairman Wade Hayes, of New York, Mr. D. J. Markie, of Maryland, Mr. Arthur Cosby, of New York, desire to appear before your committee at this time to express their views on the Army appropriations.

Mr. HAYES. Mr. Chairman and gentlemen, the committee recognizes and indorses fully, the necessity for economy and reduction in the estimates as asked by the War Department. We do not ask for more money to be appropriated, but we are deeply concerned at the manner in which the appropriations may be reduced.

We will not take your time discussing either new policies or a change of the present policies as established by the national defense act as amended. But we do respectfully submit that appropriations and policies are inextricably tied together; that is, a lack of appropriations may change policy, may actually be breaking a link in the scheme of the reorganization act.

PRESERVATION OF POLICY AS OUTLINED IN THE REORGANIZATION ACT.

The American Legion's sole concern is to preserve the policy as outlined in the reorganization act, and we are pleased to have this opportunity to express the accepted views of the American Legion.

The military affairs committee of the American Legion is interested at this time in broad questions of policy as affecting the national defense. As you may be aware, the American Legion, during the convention at Cleveland, Ohio, September 27-29, 1920, adopted resolutions commending the Congress for its action in enacting legislation as embodied in the act of June 4, 1920, adopting a definite and reasonable military policy. The same resolutions commended the War Department for its diligence and efforts in making the policy provided for by Congress effective.

The legislation embodied in the act of June 4, 1920, was enacted after exhaustive hearings had been held by the Military Affairs Committees of the Senate and the House of Representatives. While the advocates of a suitable military policy were disappointed in that no provision was made for universal training, they recognize that the legislation in question provided for a more comprehensive military policy than we have had heretofore, and that it would be possible under this policy to preserve a measure of our potential military strength which was developed during the World War after an enormous expenditure.

FEATURES OF THE POLICY.

The important features of this policy, as we understand it, provide for:

First. One harmonious Army, the Army of the United States, the components of which are: The Regular Army, the National Guard, and the Organized Reserves.

Second. The peace establishment of the Army of the United States shall include all those divisions and other military organizations necessary to form the basis for a complete and immediate mobilization in the event of a national emergency declared by Congress.

Third. The Army of the United States shall at all times be organized as far as practicable into brigades, divisions, and army corps, and whenever the President may deem it expedient, into armies.

Fourth. For purposes of administration, training, and tactical control, the continental area of the United States shall be divided on a basis of military population into corps areas. Each corps area shall contain at least one division of the National Guard or the Organized Reserves, and such other troops (of the Regular Army) as the President may direct. The President is authorized to group any or all corps areas into army areas or departments.

Fifth. A trained general staff for duty in the War Department and with troops, with well-defined functions and duties, with ample provisions to insure the selection of trained and suitable members thereof. Provision is also made that all policies and regulation affecting the organization, distribution, and training of the National Guard and the Organized Reserves, and policies and regulations affecting the appointment, assignment, promotion, and discharge of reserve officers, shall be prepared by committees of appropriate

branches or divisions of the War Department General Staff, to which shall be added an equal number of reserve officers, including reserve officers who hold or have held commissions in the National Guard.

Sixth. Far-reaching reforms in the officer personnel of the Regular Army, including an adequate number of officers in appropriate grades, a system of promotion based on equity and merit, and means for eliminating unfit and incompetent officers.

Seventh. Adequate provisions for the development and expansion of the National Guard and the Organized Reserves.

Eighth. Adequate provisions for the development of the Reserve Officers Training Corps and civilian training camps, which elements are necessary adjuncts and the principle source of officer personnel for the National Guard and the Organized Reserves.

PROGRESS IN REORGANIZATION.

The committee has examined into the policies and plans for the development of the Army of the United States as promulgated by the War Department, and we find that commendable progress has been made in the reorganization, including:

Nine corps areas established. These areas are based on the military population. The primary function of these corps areas in peace or in war is the organization, administration, training and mobilization of troops. The military population of each corps area being approximately equal; the tactical organization of the Regular Army, the National Guard, and the Organized Reserves practically the same in all corps areas and normally includes, for each corps area, one division, Regular Army (skeletonized); two divisions, National Guard (peace strength); three divisions, Organized Reserves (cadre).

This basis of organization will permit of the mobilization in emergency declared by Congress of 54 divisions, with the proper proportion of corps and army troops. Provision is made for training center in each corps area, which in time of peace will carry on certain training activities and in time of war will train recruits and replacements for the Regular Army, the National Guard, and the Organized Reserves, and will insure the development of a system of localized replacements. In order to make the system effective one cantonment has been retained in each corps area, and for training the National Guard and the Organized Reserves, as well as the Reserve Officer's Training Corps and the civilian training camps.

Tables of organization based on our war experience have been worked out covering all units comprised in a typical field army in peace and war strength, which are applicable to the Regular Army, the National Guard, and the Organized Reserves.

The distribution of the Regular Army to accomplish its mission has been worked out and is now being made effective. The mission of the Regular Army in the new Army of the United States is substantially as follows:

The Regular Army: To provide adequate garrisons, in peace and in war, for our overseas possessions.

To provide adequate peace garrisons for the coast defense within the continental limits of the United States.

To provide adequate personnel for the development and training of the National Guard and the Organized Reserves.

To provide for the necessary personnel for the overhead of the Army of the United States within which the duties are of a continuing nature.

To provide an adequate, organized, balanced, and effective expeditionary force, which shall be available for emergencies within the continental limits of the United States or elsewhere and which will serve as a model for the organization, discipline, and training of the National Guard and the Organized Reserves.

It is important to note that a certain overhead is carried in the Regular Army which affects the whole Army. In arriving at conclusions as to the strength at which the Regular Army should be maintained in time of peace, the mission of this force and its distribution should be carefully considered.

A program for the development of the National Guard to include its maximum expansion in the year 1924, has been promulgated. In preparing this program the service of the National Guard and Reserve Officers have been utilized as required by law, and the cooperation of the States has been secured, and all adjustments have been arranged at conferences between the corps areas commanders and the adjutants general of the States concerned. This program is one of the most important actions taken in recent years.

A program for the gradual development of the Organized Reserves is now being prepared. An effort is being made to avoid any interference or competition between this force and the National Guard. It is proposed to maintain the Organized Reserves as a cadre, of which the officer personnel will be complete and the enlisted strength will be sufficient for the noncommissioned personnel and specialists. This force will be brought to strength only on mobilization and will be a most economical asset in the national defense.

The Reserve Officers' Training Corps and the civilian training camps will furnish a most valuable means of developing an adequate number of reserve officers for duty with the three components of the Army and noncommissioned officers for the Organized Reserves. In view of failure to provide for some system of training, the civilian training camps furnish a means by which a large number of our citizens can be trained.

As before stated, the Committee on Military Affairs is concerned with broad questions of policy and not with special interests. Its attitude at the present time is the protest against any hasty action that will tend to endanger or disrupt the program for the development of the military policy contemplated by the Congress, as announced by the War Department. It is realized that the financial situation of the Government demands strict economy in the expenditure of public funds. Efforts of the Congress in this direction will receive the commendation of the committee. What is desired is that in making economies, it should be done in a business-like manner, keeping in mind that the preservation of our potential military strength as developed during the war, is a national asset of incalculable value. The committee is concerned with reports which have been published in the press, giving the views of various individual members of Congress not members of your committee. The committee believes that the policies now incorporated in the basic law should be

amended only after adequate hearings and deliberation, and not through appropriations having such effect. The committee has examined the estimates as submitted by the War Department for the support of the Army for the fiscal year 1922, but is not prepared to recommend reductions or increases of specific items at this time. It is believed that such action is a function of responsible members of your committee in cooperation with responsible officers of the Army called into consultation for this purpose.

Mr. ANTHONY. I would like to ask Mr. Hayes a question. Of course, this subcommittee is only concerned with appropriations for the Army and not with military policies and military legislation, and if Mr. Hayes and his committee have any specific recommendations they would like to make in connection with the appropriations we would be glad to hear them.

Mr. HAYES. As I said, we feel that specific items in the bill can be more properly handled by informed members of your committee in consultation with informed members of the War Department. We do not presume to be able to tell you how you shall function.

But there are several items we might call your attention to. We find on a chart furnished us by the War Department a column under the classification of "Cleaning up war work" which totals \$15,755,000 and another column under the heading "Quasi-military," the total of the two columns being \$29,500,000. If our committee had any specific recommendations to make they would recommend that these matters of past history be not charged against the present and future activity of the Army. There is one item in the column headed "Cleaning up war work" of over \$8,000,000 for the transportation of the Army and its supplies. That is obviously an obligation that was incurred during and as a result of the Army's activity during the war. It seems unjust that an item of that kind should be charged against the present and future development of the Army. There is another item of \$3,000,000 for clothing and camp and garrison equipage. There is also an item for the maintenance of military roads in Alaska. I suppose, of course, it is due to the provisions of basic law that those items fall under the War Department. It does not seem to us that they are a fair charge against the Army itself.

Mr. ANTHONY. As a matter of fact, the only item you mention that really is not a military item is the Alaskan road item. We have been put to a large expenditure and will be during the coming year for the care and storage of surplus material, some of it reserve material left on our hands as a result of the war, and all that material increases our military expenditure from now on because it has to be taken care of. Yet that can not be properly charged to this Army we are providing for.

Mr. HAYES. So far as the size of the Army is concerned, I may say this: Our assumption is that Congress, in taking the action it recently taken in placing the Army at 175,000 men, knew what it was doing when it did that, knew the needs of the Army, knew the resources of the country, and understood the general situation. We are not here to criticize that or comment upon it, because we assume that the action taken by Congress was taken only after Congress had advised itself of the fundamental conditions with which it was dealing.

Our chief concern in this present situation, frankly, is the civilian side, maintaining civilian activities. We feel that for the first time

in the history of the country we have a well-balanced, definite military policy, and it is so essentially woven into the civilian fabric of the country that we want to see it maintained. So far as the Regular Establishment is concerned, we do not wish to do anything to embarrass them. We are not trying to defend their interests, but we are trying to defend the development of the policies, and there are certain features in the reorganization act which, unless provision is made for them in the appropriation, it results in their virtual nullification. That becomes legislation by appropriation or lack of appropriation.

Mr. SLEMP. That comes down to the question of dollars and cents, and I am not sure that your statement is very helpful on that point. That is what this committee has to consider. It has to assume that the principles are correct and it has to get down to a question of dollars and cents.

Mr. HAYES. We are chiefly concerned in making your reductions to meet conditions, that your reductions will be made only after most careful consideration is given to each item and its relative importance in the scheme as a whole, not arbitrarily lopping off certain items and activities.

Mr. ANTHONY. I think you will find our purpose is not to hamper the organization we set up here.

Mr. HAYES. If that is your purpose, you are in absolute harmony with us.

Mr. ANTHONY. We believe it is absolutely essential to maintain a comparatively large officer personnel for the Army and have it highly trained, ready to help expand new levies of men in time of emergency. We believe that the enlisted strength of the Regular Army should be just large enough to take care of the garrisons in our foreign possessions and do proper Federal police duty at home in time of peace. We mean to take care of an adequate reserve of war material; we mean to maintain the work of development in the technical branches of the Army, such as the Air Service and the Ordnance Department, so that we will be fully abreast of every military development that there can possibly be. Briefly, that is our purpose. At the same time, in connection with that, we are fully sympathetic with the idea of the expansion of the National Guard to the full strength provided for it by law, and we are thoroughly sympathetic with the idea of the continuation of the Reserve Officers' Training Corps work and giving the opportunity for military training in schools and colleges and civilian camps; to quote the words of Senator Harding, "to carry it to such an extent that no American boy will feel that his education is complete until he has a period of military instruction," without going into the compulsory part of that work at this time.

Mr. TAYLOR. Mr. Chairman, representatives of the Military Training Camps Association are here also, and they would like to say a few words to the committee.

Mr. CLARKE. Mr. Chairman, I am a lawyer living in New York City, and for the time being president of the Military Training Camps Association. These gentlemen who are with me are experienced officers who have been concerned in the training of young men for

some years in civilian camps, and they will tell you specifically what we have in mind.

We are here to inform you and to urge the maintenance of and increase in the item on page 115 of the committee print of the Army appropriation bill for civilian military training camps, under section 47d, originally section 54 of the old act, providing for the training of citizens of the United States in Volunteer camps. The old section 54, was suggested, and in fact drafted by our association. I simply want you to know who we are and why we are here.

PLATTSBURG MOVEMENT.

This association is purely a civilian body and it represents what has come to be known as the Plattsburg movement. Many of the committee are intimately familiar with that, although I am not sure whether the members of the committee who are present are cognizant of the details of it. That was a movement that got its roots back in 1913, before the war began, in the student camps and it had a further development in 1915 on a large scale in the businessmen's camp, and in 1916 on a larger scale, so that it trained in the intensive camps some 20,000 men before we went into the war and directly supplied in the shape of reserve officers about 16,000 men who, with some further training, went into the line and became a part of the body of National Guard officers, the men who led our divisions abroad. Then those camps were adapted, since they had been demonstrated to be successful, to the training of officers in the war. Our organization which had been unconnected with the Government entirely before practically became an auxiliary of the War Department in recruiting for those camps, because they were civilian camps, held under our law and under our system, which was originally a civilian movement. In those camps during the war there were about 100,000 line officers trained, practically all the civilian line officers and replacements except the original National Guard group.

We have a national organization, a large body of members, and we are not here to suggest an innovation. We have been in this work for seven years and we are simply advocating a continuation and expansion of what the War Department and Congress have already done. Every Secretary of War from Mr. Garrison down has uniformly indorsed our work, and every President since we were organized, without regard to party. President Roosevelt gave us support, President Taft indorsed our work, and President Wilson wrote letters in favor of it, and as you know Mr. Harding has now said that he wants to make the extension of this training an important feature of his program. The appropriations, beginning with 1917, which have been made for this work are noted in your print of the bill. The first appropriation was made in 1916. There has always been an appropriation, beginning in 1916 with some \$2,000,000, amounting to over \$5,000,000 in 1917, and to over \$14,000,000 in 1918.

COOPERATION WITH WAR DEPARTMENT IN RECRUITING.

Mr. ANTHONY. How actively does your organization cooperate with the War Department in recruiting material for these camps?

Mr. CLARKE. In the original camps we got the men entirely. We said, "You hold these camps and leave it to us to get the men." In recruiting for these camps we figured that this association spent in money over a million dollars in the last five years, the bulk of it during the war. This money came from voluntary contributions. We got applications from something over 400,000 candidates for the officers' camps. We got 150,000 applications within 30 days after May 1, 1917, and we delivered in camp on May 15, 1917, three days before the draft act was passed, 45,000 young men who were candidates for officers. Those were the men who led our armies and we put them through the training in our camps.

Mr. ANTHONY. You still maintain your headquarters and your organization that reaches all over the country?

Mr. CLARKE. We are organized in six departments. We have a small overhead. We do that in order to keep together this group of men.

Mr. ANTHONY. Should provision be made for the continuation of the civilian camps this summer, do you feel that it is quite certain you would have an abundant supply of material there to train?

Mr. CLARKE. Yes, sir. This item really is introduced in the bill upon our suggestion. On August 26, 1920, we presented to the Secretary of War a formal proposition to hold training camps in each corps area, 30-day camps for young men between 18 and 19 years of age, concentrating on these men because these are the men we can get to go during this particular year. We think we could get between 45,000 and 50,000 young men. We said we would deliver the 30,000 men provided for and we have figured it out that it would cost about \$7,500,000. We were very much surprised and shocked when we saw in this bill that the amount of the estimate had been reduced to \$3,000,000, and we hope the figure will go back to the original amount. The economy of it will be explained to you by others. For every dollar you spend on the Regular Army we can train in these camps between 10 and 15 men, and we will Americanize them and put health into them and have a reserve. We think that is good economy for Congress. I know you have a limit and you have got to cut down on the Regular Army.

Mr. SLEMP. These will be camps for the training of officers?

ACTIVITIES.

Mr. CLARKE. Not primarily. Under the scheme there will be three of these camps, the red camp, the white camp, and the blue camp. The red camp is for the training of a man in the duties of an infantryman. After a man has been trained in the duties of an infantryman he then goes to the red camp, if he is qualified, and in the red camp he is trained to be a noncommissioned officer, and the picked men from that camp go on to the officer training in the blue camp. But the basic thing is for the man from the East Side of New York and for the boy from the farm. It is for all classes and kinds. It is training for the duties of a private.

Mr. SLEMP. Is the activity of your organization largely limited to securing men for these camps?

Mr. CLARKE. Yes, sir; entirely.

Mr. SLEMP. And following the adoption of the policy by the War Department, you would get busy to see if you could not fill up the camps?

Mr. CLARKE. We would cooperate.

Mr. SLEMP. How do you raise the money to run your organization?

Mr. CLARKE. By popular subscription and by dues. We have a small amount coming from dues. Most of it comes from small voluntary subscriptions.

Mr. SLEMP. How much do you spend, generally, on this work?

Mr. CLARKE. Before the war, in 1915, when we organized the first Plattsburg type of camp all over the country, and got a good many thousand men into them, I think we spent about \$75,000 for printing and propaganda work.

Mr. SLEMP. Not mentioning the voluntary activities of thousands of men?

Mr. CLARKE. Not mentioning that. In 1916 I think we had about 5,000 men in camp. We conducted a big campaign that year. We spent about \$100,000, exclusive of the volunteer services. Coming down to the war, the Government was equipped to recruit men and officers. We had to print hundreds of thousands of circulars describing these camps, and we had to print blanks. We secured the services of thousands of volunteer doctors to examine these men and we hired men to work for the Government. We paid the Government's bills, and I suppose during the 18 months of the war the organization spent in cash, exclusive of services, over half a million dollars. We asked the Government to give some of it back and they gave back \$10,000, I believe. But we do not make a profit of that.

Mr. SLEMP. Let us know what you have done this year and what you propose doing next year. What are your plans?

Mr. CLARKE. All our men went into the war and practically the year after the war the work of this organization was really that of planning by a small committee, and the study of legislation. We made certain recommendations about the bill which you passed. This year we organized and said we would go back to first principles and ask the War Department and Congress to hold these voluntary camps, in the belief that it would develop into a main feature of military policy, and be a great thing for the country. Our activities this year are advocating these camps, and when they are adopted and appropriated for and made effective, we will cooperate with the Army through the schools and by issuing circulars and holding meetings and putting those 30,000 men and boys in those camps. That is our function. We are purely a civilian organization, and have no connection with the War Department, except that necessarily we must cooperate with them and work in harmony with them.

Mr. SLEMP. How many men were trained by your organization who entered the war as officers?

Mr. CLARKE. About 21,000 were trained in our Plattsburg camps before April, 1917, of whom we estimate about 90 per cent entered the service, practically all as officers. In the officers' training camps of 1917-1918, which were merely a continuation or adaptation of types of camps, about 100,000 line officers were trained—all our officers except Regular Army officers and about 15,000 National

Guard officers. Secretary Baker in his report has pointed out that the war officers' camps resulted from the prewar Plattsburg camps.

Maj. Thacher, who is also a lawyer in New York City, is one of the pioneers in this actual camp work. He with Maj. Kountze, who is also here, and one or two other men, projected a camp in 1916 at Plum Island, which was a model young man's camp. Later, he was a major of Infantry in France, and he has studied this subject so long that he is well qualified to speak about the specific things we expect to do.

Mr. ANTHONY. We will be glad to hear Maj. Thacher.

Mr. THACHER. Mr. Chairman, I should like to have your committee regard me as I am, as a civilian, testifying to you as a result of what he himself has seen and experienced in regard to the value of the training of these young men. I want to emphasize the fact that I do not approach this question in any way from a militaristic point of view. I never had a day's military training until 1915, and since then I have been in two of the Plattsburg camps, the Plum Island camp, and in the Army, and I have seen the effect of this training upon young men in these camps and upon the young draft men who were under our first officers when we were in the Seventy-seventh Division, trained at Camp Upton.

I would like to very strongly recommend to your favorable attention what may be called the economic value of this training upon these young men. Hand and hand with that goes the value of the military training. But I would like to leave, if I may, one particular impression with you, and that is the value of mixing the young men of all classes and kinds and stocks and races from different parts of the country with each other in these camps. Mr. Clarke has referred to the camp at Plum Island in 1916 as a model of that character, and I think it was. There were 1,200 boys in that camp drawn from 24 different States of the Union, from 300 different schools, and from no school at all. There were boys from the East Side of New York, boys who pulled an elevator rope, boys who were sons of the Regular Army washwoman——

Mr. ANTHONY (interposing). There is no limit on the War Department as to the number of civilian training camps, is there?

Mr. THACHER. One to each corps area is the present tentative plan. We are discussing the plans of those camps and we are cooperating as far as we may in making suggestions for their organization.

Mr. SLEMP. You would approve of that plan rather than assembling men from all parts of the United States at one point?

Mr. THACHER. Economy is the only recommendation, in my judgment, primarily for the corps area plan, because I do regard the mixing of boys from different parts of the country as of the highest value. So far as the regulations go we are recommending to the War Department, and we believe that they will accept that suggestion, that if a boy wishes voluntarily to attend a camp outside of his corps area he should be given the cost of his transportation to the camp within the corps area and if he can make up the difference in transportation to another area where he desires to go, he may go out of his original corps area. I agree that that is not ideal. But the Government, for the sake of the value of the Americanizing principle should assume that expense, if it were able, out of its pocket and mix those boys and transport them to different parts of the country. I

can not too strongly tell you of the very valuable understanding that boys from different parts of the country gained of the viewpoint of young men from another part of the country by that very process of mixing.

That camp at Plum Island lasted five weeks. It is proposed that the civilian training camps shall not last quite so long, therefore they will be slightly less expensive. If they are to be made a success, and if the value of bringing home to these lads, many of whom have come from recently immigrated parents, the full meaning of Americanization is to be realized, if you wish to break down by proper education class feeling, and class misunderstanding, racial misunderstanding and prejudice, you can not do it better than by mixing those boys in the same camps and letting them understand each other.

Mr. ANTHONY. Do you not get most largely the American type of young men in these training camps?

Mr. THACHER. We did in the preliminary ones, but at each successive camp there has been a very satisfactory increase in the other type, since they have come to understand and appreciate the purpose and value of the camps. We are making a specific recommendation to the War Department concerning recruiting. We want to hold them if they will let us, and our recommendation is that we be allowed to endeavor specifically to recruit for them a substantial percentage of boys who are descendents of foreign stocks. You will do more to break up misunderstanding and social prejudice, not founded on false bases, by that means than any other that I have had any experience with.

The effects of the camp at Plum Island were chiefly in developing the spirit of Americanism and the Americanization work. The boy who attended that camp was an American, wherever he came from. Let us see how the proof of the pudding was in the eating. Within three months after the breaking up of that camp in August, 1916, we received through those boys alone, without having raised a finger, the names of between 9,000 and 10,000 other boys who wanted to go into camp the next year. By January, 1917, without really having started recruiting for the camps, that would have taken place had not been for the war, we received, without any attempt at recruiting, and had on our card lists the names of 23,000 boys from all parts of the country who wanted to go into camps the following year. That is the most convincing proof that those boys who went to that camp thought that it was a good thing. We have a booklet, copies of which I am sure the executive secretary will send to you if you desire them, containing unsolicited testimonials from 300 different schoolmasters, fathers, and mothers, saying that this is the best thing that ever happened. That is the type of testimony that comes from the mouths of people most of whom never realized what those camps could do for those boys, and that is the kind of testimony that appeals to you and to me. We can not ignore it. It is convincing.

When we speak of holding these camps next summer, addressing myself to the particular item providing for the proposed appropriation of \$3,000,000, which represents a cut of more than 50 per cent. from the original estimate, we ask you to very seriously consider the establishment of the original figures and increase the amount contained in the bill.

Mr. SLEMP. Have you gentlemen found any widespread demand for these camps? Are we in the midst of a reaction against those things? Have you any expression in regard to that, or has your organization any such expression?

Mr. THACHER. I can not say that we have tested it out throughout the country, but we find an expression in our branches in the various parts of the country of their attitude toward this training next summer and we get from them a reflection that a great many lads would like to go into camp next year.

Mr. CLARKE. In our convention the opinion was expressed by the men from all over the country that we would have no trouble in getting an average of five or six thousand men in each corps area, and in some corps areas a great deal more than that. In other words, we would have no trouble in getting 50,000 men in camp.

Mr. THACHER. I might say in that connection we are recommending to the department that its regulations should be elastic, so that if one corps area does not come up to its quota the regulations would be sufficiently elastic so that they could place the total number of men desired at any one camp.

You asked Mr. Clarke whether this was primarily for officers. No. It is proposed to take into this primary camp the best cross section of American youth we can get. We want to make every person in the United States feel that there is a place for every man's son, if he is physically fit to go into those camps. This is not an officer's scheme. One of the purposes of the series of white camps is to help prepare the men to be noncommissioned officers. During the course of Col. Hayes's remarks, Mr. Chairman, you emphasized the great value and importance of a complete officer personnel. That can only be thoroughly accomplished if there is back of it a competent noncommissioned personnel. I will give you a concrete instance. My division, the seventy-seventh Division, was officered from the Plattsburg camp. After the second group of so-called Army or Plattsburg camps, which began in September, the War Department then decided to hold no more officers' camps. With all respect to the department, that was a great mistake. Their idea was that from that point on they would be able to make enough officers out of the drafted men who rose through the ranks, the noncommissioned officers.

I thoroughly believe that a man's promotion, from a private to a general, should not depend upon anything but his ability. Promotion from the ranks on merit is the best thing there is. The mistake was after stopping these officers' camps in practically ordering each one of the divisional camps to make so many hundred officers out of the enlisted personnel, men who had been largely trained under amateurs, as we confess we were, men who were just beginning to get up to the point where they were learning to command, such as corporals. The result was that right in these training camps we were skimped, once of our best noncommissioned personnel, the endeavor suddenly to make officers; and twice on the other side where we were again called upon to get from our battalions, our regiments and our brigades more noncommissioned officers who had just begun to be trained, for officer personnel. You can not do it that way. You have got to let merit rise. But you have got to make good noncommissioned officers first, if you ever expect, artificially,

to make them into officers afterwards. These camps will help provide you with that essential support.

Therefore, without wanting to take too much of your time and labor this point too long, I respectfully urge upon you as a witness before you, not as an advocate in any sense, not only the maintenance of the item to which we are addressing ourselves, but an increase in the amount in the item. I think you are doing one of the best things you could do to mix these men in the training camps.

The estimate which we have obtained from the War Department so far as the actual cost of these camps goes—and I am not speaking of the overhead for officers because that you have in mind anyway—one of the very best ways you could help train your reserve officers is to let them try it on somebody. If you do not give the reserve officers any practice in command they will be no good when you get them on the line. To put these young men individually into camps, the War Department estimates their expenses of travel and for other things, to be about \$100 per man. As I understand it, Congress intends to make a very substantial cut in the Regular Army personnel by reducing it to 175,000. Out of that saving, may I respectfully recommend that you can not do better than apply some of that saving to this item so that you can give this training to these young men. It only costs from one-tenth to one-fifteenth as much to give the young men the training in these camps as it does to maintain a man in the Regular Establishment, and you will do great educational work in so doing.

Mr. CLARKE. Mr. Chairman, President Henry S. Drinker, of Lehigh University, became identified with the student camps back at Gettysburg in 1913. When we formed our organization in 1915 we did it by a merger of the student's organization with the business men's organization and President Drinker, as the most distinguished man ever identified with it, was obtained as chairman of our committee and later as president, and when he asked to be relieved from active duties, after giving a large amount of time to it for a number of years, he became honorary president of the association. He is familiar with this subject long before any of us, and we have asked him to say a word to you.

Mr. ANTHONY. We will be very glad to hear President Drinker.

Dr. DRINKER. Mr. Chairman, I have been president of Lehigh University for the last 15 years, and retired on the 31st of December when I reached the age of 70. I have been intensely interested in the Military Training Camps Association from the date of its formation in 1913. The first name of the organization was the National Reserve Corps of the United States; it was formed in the summer of 1913 by the young men from colleges who attended the Gettysburg camp. There were 161 men there. This movement grew from an attendance of 161 in 1913, at Gettysburg, and about 60 at the camp in California, to over 16,000 in the summer of 1916. As Mr. Clarke has said to you, the result of it was that between the voluntary civilian camps before we entered the war and those of the Army which this organization aided during the war, some 100,000 men were trained as officers, of whom about 16,000 were from our civilian camps.

I am speaking purely from the educational standpoint and as a civilian. When the project was first broached in the spring of 1913 by the War Department as to having our college stu-

attend camps for this training, I took it up enthusiastically because I knew what a good thing it would be for our young men. You gentlemen know that one of the things the average American young man needs is some measure of steady discipline. Educationally the training has proved to be a great asset; there is no question about it. It was true during the years in which the attendance was voluntary, and it has become more and more so. In regard to the development of the Reserve Officers' Training Corps I understood you to say, Mr. Chairman, that the committee were disposed favorably to the consideration of the civilian camps and of the Reserve Officers' Training Corps. I am interested in both, because the civilian camp preceded the Reserve Officers' Training Corps; the Reserve Officers' Training Corps grew out of these civilian camps.

Mr. ANTHONY. Which type of training appeals most to the students in our higher class of colleges, the Reserve Officers' Training Corps training, or do the students in the larger colleges prefer to go into the training camps?

Dr. DRINKER. That is a very hard question to answer.

Mr. ANTHONY. For instance, the land-grant colleges and most of the smaller colleges have pretty active Reserve Officers' Training Corps units.

Dr. DRINKER. It is compulsory there.

Mr. ANTHONY. The information was given us that in the larger institutions the units were not so active.

Dr. DRINKER. Let me give you a concrete instance in my own experience at Lehigh. We have about a thousand men, mainly engaged in engineering studies. Our trustees and faculty were so impressed with the value to our men of the voluntary attendance at the camps in the preceding years, that last year when the Reserve Officers' Training Corps was put on a stable basis by the War Department we introduced a unit of it, in September, 1919. Of our thousand men about one-third volunteered to enter it, and worked in it through the year without dropping out to any appreciable extent. It was exceedingly satisfactory from an educational standpoint. What I mean is that the men clearly showed that the discipline was an excellent thing for them. The experience was so good that about the middle of the year our trustees and our faculty voted unanimously to make the Reserve Officers' Training Corps work compulsory on the men thereafter entering college, so it is now a part of the regular course at Lehigh.

There are units at a large number of colleges, and where they exist I have always heard my brother college presidents speak favorably of the effect. I can not tell you exactly, but the War Department can give you specifically the number of units and how it has worked in other cases. I can only say that in my own case it has been educationally most valuable in making all-round citizens and better men.

Mr. ANTHONY. We already have in the record a very strong letter from President Stone of Perdue University. I believe he was also president of a Reserve Officers' Training Corps Association.

Dr. DRINKER. In this Training Camp Association of ours at the start of this movement in 1913 some nine college presidents took hold of the matter as an advisory committee, the presidents of Yale, Harvard, Princeton, Alabama, Michigan, California, Lehigh, and

others. There were 9 all together. There are now 18 presidents of representative institutions of the country who form this advisory committee of the association of which Mr. Clarke is now president and who believe in it as a matter of college training. Incidentally and a good deal more than incidentally, of course, we all recognize that it is of value to the country in furnishing personnel for officers. So you have before you in the civilian camps the training of privates and noncommissioned officers, and in the Reserve Officer Training Corps the careful training of officers, and I think between the two we have a system now that is voluntary; that is, one coming from our citizens, and that is calculated to be not only of great value in the development of our citizens, but of great value to the Government if the time should come when we would need men to fall back on who know something about the matter of national defense.

Mr. Sisson. What do you think about the tendency of this training? Do you think it will grow rapidly?

Dr. DRINKER. You mean grow in numbers throughout the country?

Mr. Sisson. In popularity throughout the country?

Dr. DRINKER. I think it is bound to as the people come to understand it better and realize that it is a matter of education rather than of war.

Mr. Sisson. Do you think it will possibly result in universal military training?

Dr. DRINKER. Not at all. It is just the opposite of that. It is the question of adding to the training of our citizens some knowledge of other essential branches of life and in our colleges a very valuable adjunct to their general educational training.

Mr. Sisson. As a matter of general governmental policy, one of the great problems that confronts us to-day is to get men interested in agriculture, which is the basis of all national strength and prosperity in time of peace, and is the first line of defense in time of war, because the Army must move on its belly. Have you given any consideration to the question of stopping this almost universal desertion of the farm? There are about 400,000 men according to the census, who left the farm last year and about 200,000 the year before, making about 600,000 who left the farm in those two years. What the statistics will show this year we do not know. All men heretofore were producing. Of course, as the producing continues to decrease and gets into the professional classes or other lines of industry, to that extent we weaken the very backbone of the Nation. Have you given any thought to that great question?

Dr. DRINKER. We have different types of colleges. We have in Pennsylvania a very excellent agricultural college in our State college.

Mr. Sisson. My observation has been that the agricultural colleges have been educating the boys away from the farm. We have established in my State the first purely agricultural college established in the United States, and it is a splendid institution. It is a very great advocate of agricultural education, but only about one man in 10 who attends the institution at all remains on the farm and of those who remain on the farm most of them have their estates in land.

Mr. CLARKE. We want to get these boys out of the city.

Mr. Sisson. I do not believe you will ever do that. There are not many young men now who, after living among the white lights, will go back to the farm.

Mr. CLARKE. We are not attempting to say that we are going to put men back on the land by this scheme. We do not make any such claim.

Mr. Sisson. I know a great many people look with a great deal of contempt on agriculture. I realize it is getting to be a most contemptuous thing for a man to work with his hands and go out on the farm and get a clod in his own shoe; but I have more fear for the future if we get into war—another war like this one will absolutely cause the farms to be deserted, and nothing but dire necessity will drive those men back.

Dr. DRINKER. During the war we made our contribution to the farms. All of the colleges made contributions to the farms and a number of students went into that work. But our men go to college to pursue certain lines of study to prepare themselves for certain lines of work.

Mr. Sisson. I understand that. Perhaps we can not change the very nature of man.

Mr. SLEMP. Before the European war we had a good many military colleges in the country and then we had a number of agricultural institutions which had governmental assistance and they had military training. Then at the outbreak of the war a good many universities put in a system of military training. You said Lehigh did that. Lehigh is preserving that system?

Dr. DRINKER. We put in our system after the war, in September, 1919. Prior to that time it was all voluntary work in the training camps. There was no general settled movement among the colleges, but they were interested.

Mr. SLEMP. Are the colleges and universities of the country going back practically to where they were before the war?

Dr. DRINKER. Largely so, I think.

Mr. SLEMP. The reaction is on in that direction just the same as it is in other directions, going back to the prewar status nearly unanimously, is it not?

Dr. DRINKER. I would not call it nearly unanimously. I think at Lehigh we are perhaps rather more earnest in that training than some of our competitors.

Mr. SLEMP. What is the situation at Harvard and Yale?

Dr. DRINKER. Dr. Lowell at Harvard is very much interested in the Field Artillery branch. The same thing is true at Yale. They have excellent units in those particular subjects.

Mr. SLEMP. But as a general proposition the universities and colleges which added military training to their other work during the war have abandoned that policy and have gone back to their purely civilian work?

Dr. DRINKER. I would not wish to go so far as to say that.

Mr. ANTHONY. But there are some of the colleges that have dropped their military work since the war?

Dr. DRINKER. Undoubtedly.

Mr. ANTHONY. Do you know whether many of them have done that?

Dr. DRINKER. I think Dr. Mann can give you better information than I can about that. I know some of our university presidents are still enthusiastic for that work.

Mr. ANTHONY. Can you tell us at this point, Dr. Mann, whether more colleges have taken on the military training than have discontinued it since the war?

Dr. MANN. Since the war, since the Reserve Officers' Training Corps was reestablished, at the close of the war there were 115 colleges who had taken it up and have very flourishing units. During the past year four colleges have dropped their Reserve Officers' Training Corps units and the number of students in the Reserve Officers' Training Corps is in the neighborhood of 60,000 as against 50,000 last year. When the War Department succeeds in getting suitable officers who can adapt themselves to the conditions in universities the thing is almost always a success. It is growing, and the colleges are establishing special units this year of the Field Artillery and Engineers, and the demand for those special units is increasing all the time. At the request of the colleges five air units have been established.

Mr. CLARKE. You say there are 60,000 members of the Reserve Officers' Training Corps this year. How many were there in the Reserve Officers' Training Corps in 1916 who were taking the pre-college training?

Dr. MANN. The Reserve Officers' Training Corps was first established in the national defense act of 1916, but only in a few colleges. Col. Clarke and I were together during the war in the War Department on this proposition, and they did not have a chance to get started before the war came on, and that broke it up so that during the war the Reserve Officers' Training Corps was practically a dead letter. But it was revived immediately after the armistice.

Mr. THATCHER. May I answer your question, Mr. Sisson? Before you came in I was explaining to the other members of the committee about the camp for lads of 16 and 18 years of age held at Plum Island, off New London, in 1916. We had there 1,200 lads from 24 different States in the Union. I came down here just about the time it was evident that this country was going to get into war and had a conference with Secretary Baker, and among the plans which I suggested might be useful, if he had time to consider them, was the placing of lads who could not be useful in the military service because of their youth—to put those young fellows where they would be helpful in agricultural work on the farm so that they would add to the actual productivity during the war. He appreciated thoroughly of the idea but did not have the time to organize a system. Notwithstanding that—and this is the point I want to emphasize, because it shows the mental attitude of the young men—scores of those boys did go to work throughout the war on the farms because they could not fight.

Mr. SISSON. What about their permanently remaining on the farms?

Mr. THATCHER. I am coming to two other points and will express my opinion for what it is worth, as to that particular question. The outdoor life that city boys get in these civilian military training camps, and which are to-day more civilian than military, makes them appreciate for the first time in their lives what a work

thing the outdoors is. I commanded a battalion through the Argonne campaign, and that battalion was made up principally of men drafted from New York City, many of them who had sweated in tailor shops all their lives, men who would have lost their bearings if they tried to cross a wooded area half a mile wide. I have heard lots of them say to me when they got through, "I am never going back to indoor life again; I am going out and try to get a bit of land." That is absolute testimony to you of what I personally have come in contact with. I can only express an opinion that the effect upon such men who go into these camps tends to make them appreciate and understand what the outdoors is and gives them, I believe, a very valuable start toward putting them back on the land.

Mr. Sisson. One of the most wonderful bits of mythology is the story of Antaeus. He developed into a mighty wrestler, and every stranger who came into the midst of the community had to wrestle with him, and he would always strangle them to death. Hercules undertook to get rid of him, and some jealous mythological woman gave Hercules the secret of his strength, of his success. He kept his feet on the ground; his Mother Earth gave him his strength. So Hercules watched his opportunity and got Antaeus off the ground and rushed him and was about to strangle him to death. But he threw him forcefully on the earth, and then his Mother Earth gave him all his strength again, and if some goddess had not rescued Hercules he would have been killed himself. The goddess reprimanded him. She said, "I told you his strength was in the earth." He watched his man again and got him above the ground and began to strangle him and finally strangled him to death. So the lesson sought to be taught to the Grecian youth by that bit of mythology was that if Greece wanted to be strong she must keep her feet on the ground. So if we are to be strong in a military sense we must keep our feet on the ground. We have got to keep our primary industry strong, and we have got to keep production going along at full speed, so that the people can be well fed. Mr. Spencer said that man is nothing but a great animal, and to develop a great race of people you have got to first feed them well, because it is upon the physical being that you must build all of your intellectual development. These are bits of philosophy that the American people must learn, because we are rapidly drifting to the point where, as Bishop Thompson says, the problem is going to be to feed ourselves. Before we get to that point we have got to solve the greatest of all problems, greater than navigating the air or going under the sea, greater than wireless telegraphy, because without the proper development of the food supply of the world you will have no need of wireless telegraphy and there will be no reason to go under the sea. Whether or not the story in the Garden of Eden is absolutely accurate—I believe it is; some people doubt it—we do know that it is one of the inexorable laws of nature that you have got to earn your daily bread by the sweat of your face.

Mr. THACHER. I agree with that; that is one of the reasons why men are taught these things.

Mr. HAYES. The application on the other side of that story of keeping one's feet on the ground is that it cost this country several hundred million dollars and a great number of lives because we did not get off the ground.

Mr. Sisson. I doubt your statement entirely. I do not believe the history of the world will show that any brute force ever long controlled the people. I think there has got to be a moral, intellectual force behind it. I think Germany is a living illustration of the fact that you may overtrain people in a military sense and that you depend entirely upon quick summary action, because Germany does not have the moral support finally of her own people.

Mr. CLARKE. We do not want a big Regular Army. We are here to suggest that you go above a reasonable limit on the total amount you appropriate. The item we are interested in carries only \$3,000,000 out of \$681,000,000. We only ask that when you scale down the appropriations you will give this item its relative importance.

Mr. Sisson. Do you not think it is a pretty dangerous policy to yoke up army training and the military idea with the universities of the country? They ought not to be yoked up together. Do you want to yoke them up together?

Mr. CLARKE. To a reasonable extent; we do not want to militarize them.

Mr. Sisson. The young men will absorb at least a small amount of the views and ideas entertained by the General Staff and Army officers.

Mr. CLARKE. I did not say that; that is quite another matter.

Mr. Sisson. I do say that when you do that that is practically unavoidable.

Mr. CLARKE. You put these boys in these camps, and they do get any General Staff ideas there.

Mr. Sisson. Propaganda has been sent out all over the country and they have at least gotten some young men by means of it propaganda, with the idea that by joining the Army they can get an education. The result is practically that the voters of the country will say to me and to you, if you do not vote for this appropriation we are going to vote against you because it is giving my boy an opportunity to get an education. It will grow and will be just like a camel getting his nose under the tent, in the course of a generation unless the expenditures of the Government grow so large that the people rise up in revolt. At any rate it is the most dangerous thing to be taken, in my judgment, in America, to get the Federal Government spending money for education under the guise of doing it for the Army, because aside from that it would not be effective if you spend money under the guise of making an Army and then they will give about one-third military training and two-thirds education or vocational training. I believe that is the proposition. Just where it is going to end, I do not know. But I will say without hesitation that whatever is for the best interests of the country is for the country.

Mr. THACHER. We came before the subcommittee to speak about one particular item. We are here merely in behalf of the military training camps.

Mr. Sisson. I understand.

Mr. THACHER. We are not seeking to induce those young men to go into the Regular Army.

Mr. Sisson. But can you control it; when you get that idea circulating around, can you do that?

Mr. THACHER. Congress can always limit the Army.

Mr. SISSON. That is the silliest of all notions, that Congress can limit anything. Congress will do just what you have educated the people up to, and when you educate them up to that point where they want this military training, Mr. Anthony will sit in Congress just as long as he votes as the people want him to vote, and so will I. It is not the awful power in Congress, because it is the weakest body of men, in one sense of the word, in the world. It does not matter who is put in Congress, as long as they do what their constituents want them to do. So it is a matter of the education of the constituencies at home, and once they begin to imagine that they are getting something for nothing—and that is the way they feel about everything they get out of the Federal Government—they will want it. I am simply making this suggestion with the idea, if possible, of getting before you the other view of the picture, that we may find it will grow of itself without any encouragement on the part of Congress and get to that point where Congress will be obliged to do just what you want. If Congress starts out with that encouragement, it will come just that much sooner.

Mr. THACHER. There is just one paragraph I would like to put at the end, and that is in regard to the health value of these camps. As a concrete illustration of that value, let me remind you of this: This boys' camp was held during the height of the infantile paralysis epidemic in the East, especially in the vicinity of New York. In the hospital at that camp there never were at any one time more than four or five boys, and there was no case of infantile paralysis in the camp. That shows the health value of those camps.

Mr. CLARKE. Col. Kountze, of New York, will say just a word to the committee, Mr. Chairman.

Mr. KOUNTZE. Mr. Chairman, I just want to refer to what Congressman Slep said in regard to the size of the Army. I believe personally—and that is the belief of a great many men—that the proper basis for the Army of this country is about 175,000 or 200,000 men. By cutting it to that size, you must have something to fall back on, and the only thing you can fall back on in case of trouble is the system of training citizens, and I believe in what Senator Harding said some two weeks ago when Col. Galbraith, the head of the American Legion, and I happened to be out there to see him on the question of the disabled men. I had an opportunity to take up this question with him. He was most sympathetic with the idea, as you know, and I believe if the idea is ultimately to get these boys in the camps and train them in discipline and good citizenship that it is necessary to start in some small way. I do not think we can succeed in putting a large number of these fellows into camp. If we can only send a comparatively few throughout the country, 20,000 or 30,000, I believe it will be the longest possible step toward doing what is one of the most important things in this country, and that is the Americanization of all these people who come over here, and it will go further to stamp out the danger of the red element than anything else, and if you gentlemen will appropriate this small sum asked for I believe you will find that you have taken a very wise step, and the money will be well worth spending.

Mr. ANTHONY. We are very glad to have had you gentlemen with us this morning and we will give careful consideration to what you have had to say.

FRIDAY, DECEMBER 17, 1920.

TANK SERVICE.

STATEMENT OF COL. S. D. ROCKENBACH, CHIEF.

TANK CONSTRUCTION.

(See p. 1194.)

Col. ROCKENBACH. Mr. Chairman, if the committee will permit, I would like to make a few introductory remarks. I found last year when I could get the committee out at Camp Meade and have them actually see what I was doing I had no difficulty.

This is a new subject, one that we camouflaged and kept secret during the war. It has been very hard sledding since the war due to the loss of a great many men who knew and had a very great interest in the subject.

The tank is the highest development of mechanical warfare; it is the only machine that was developed by the Allies during the war. Everything else that we had was practically of German development. The tank we are using is an improvement on anything used during the war. It is an Anglo-American tank. It has two 6-pound and five machine guns. It carries its own ammunition and its own transportation and a crew of 11 men. The gun power and the ammunition carried by that machine, if operated by artillery and machine gunners, would require 150 men and something like 100 horses.

Mr. ANTHONY. How was that developed?

Col. ROCKENBACH. That was agreed on in an interallied agreement in January, 1918, an agreement between the British and the United States.

Mr. ANTHONY. Did we build any last year?

Col. ROCKENBACH. We built them fifty-fifty. The British furnished us the guns and the armor plate and we furnished the Liberty engine and the running gear.

Mr. ANTHONY. How many did we build?

Col. ROCKENBACH. We have in this country a total of 100.

Mr. ANTHONY. Of the big tanks?

Col. ROCKENBACH. Of the big tanks.

Mr. ANTHONY. When were they built?

Col. ROCKENBACH. They were completed in the spring of 1919.

Mr. ANTHONY. When did you say the order was given?

Col. ROCKENBACH. The order was given in January, 1918.

Mr. ANTHONY. That is one of the contracts growing out of the war that was allowed to go to completion?

Col. ROCKENBACH. The British had delivered their components and we had manufactured ours, and we brought the British over and simply assembled them. In addition to that we have the French Renault tank, a small tank which carries either the 37-millimeter gun or machine guns. That is operated by two men. Their purpose is to take their gun power—it is an assaulting machine—in the enemy's lines. This machine, with its 6-pounders, fires to the front and to the left. The boche never could do anything with this machine.

We have developed since then a radio tank. That is a machine which will be of general use, because a brigade commander or division commander can go in there with his operator or clerk and he will be in a tank protected by armor plate and he can get right up on the front line. You can communicate with that tank from the front line back to the division commander, 5 miles back. I can sit in my signal officer's office at Camp Meade and operate from that office moving tanks at a distance of 5 miles.

Mr. ANTHONY. Is that tank armored?

Col. ROCKENBACH. Yes.

Mr. ANTHONY. That is merely for headquarters?

Col. ROCKENBACH. It is for our own communication. We developed it for our communication. That is a radio tank.

Mr. ANTHONY. What is the danger of having the radio put out of commission?

Col. ROCKENBACH. It is very little. The British and French developed a series of wires about 6 feet in width, trailing on the ground for 30 feet, and that was not serviceable. This is our own development. We came back from the war knowing what we wanted. We did not have the time, and there was no use during the war to attempt to get people to put something into production that they did not know anything about. We came back and made up our specifications, and here is a photograph of the tank we have developed [exhibiting photograph]. It is an all-American tank. That is a photograph of it which was taken at Hoboken on Wednesday. That tank is on top of a 25-foot bank. It weighs 13 tons. One slope is 100 per cent slope and the other is 80 per cent.

Mr. ANTHONY. It propels itself with its own power?

Col. ROCKENBACH. It propels itself with its own power and comes down easily. In the development of this tank we have initiated a bigger proposition. That development has resulted in the development of a cross-country chassis. The engineers have taken the same chassis for their searchlight, and here is something the world has never seen before. There is a 155-millimeter or 6-inch gun, weighing 48,000 pounds, on top of a 25-foot bank. Here is the gun in the firing position, to be fired from that mount [exhibiting photograph].

Mr. ANTHONY. This is an instance where you have the tractor and the gun combined?

Col. ROCKENBACH. That is an instance where we have the tractor and the gun combined.

Mr. ANTHONY. A self-propelling gun platform?

Col. ROCKENBACH. A self-propelling gun platform, and that gun is put up there by one man driving it. I wanted to get this little introductory statement before the committee for this reason.

Mr. ANTHONY. Where was this developed?

Col. ROCKENBACH. Right here in the United States.

Mr. ANTHONY. By the Tank Corps?

Col. ROCKENBACH. We gave our ideas for that to the Ordnance Department on November 11 of last year, and it was made through the Ordnance Department. We wrote out the specifications, what the machine should do. A man who had gone into this business during the war, of the Front Wheel Drive Co., the people who manu-

facture the standard motor fire apparatus of the United States, was an automobile race man, and this is his development.

Mr. ANTHONY. That is our lighter tank. What is the British American tank?

Col. ROCKENBACH. When loaded it weighs 40 tons. Ordinarily nothing of this new tank will appear, the ordinary folds of the ground hide the bulk of it. It has a turret with a 6-pounder and a machine gun, and revolving turret with one machine gun above.

Mr. ANTHONY. It is heavily armored?

Col. ROCKENBACH. To resist armor-piercing bullets. We can cross the artillery zones with this tank at quite high rates of speed and with little chance of getting hit. As a matter of fact, out of 400 machines we only had 7 destroyed by hits.

Mr. ANTHONY. You consider this the very latest development of the tank?

Col. ROCKENBACH. It is the very latest development in mechanical warfare. This is operated by five men.

Mr. ANTHONY. How many of them have you built?

PERSONNEL.

Col. ROCKENBACH. Just one. It is absolutely impossible for us to do the work of 150 men and 60 horses mechanically without having skilled trained men. At Camp Meade now we have approximately 2,000 men. Up until the 30th of June we had trained 500 men. In two months we will have 500 men trained.

Mr. ANTHONY. How many men are authorized for the Tank Corps?

Col. ROCKENBACH. The reorganization has not been approved yet, but it is about 3,253.

Mr. ANTHONY. Was the strength of the Tank Corps fixed by the reorganization act?

Col. ROCKENBACH. No, sir; the tanks were merged with the infantry.

Mr. ANTHONY. And made purely an auxiliary, its purpose, however, fixed by the Chief of Infantry?

Col. ROCKENBACH. That is correct.

Mr. ANTHONY. How many men and how many officers have been assigned to you?

Col. ROCKENBACH. While the General Staff has not passed it yet, the assignment is roughly 260 officers and 3,253 men.

LOCATION OF OPERATIONS.

Mr. ANTHONY. Where are the principal operations of the Tank Corps at the present time?

Col. ROCKENBACH. We propose to put a battalion at the infantry school at Camp Benning. That will be three companies. At the present time we have two. With four divisions we have a company. We want to put one company with each division and put in each division area a platoon, which is purely a training organization, and then we have three battalions as an Army reserve, the location of which has not been decided yet. At the present time it is at Camp Meade.

Mr. ANTHONY. Where is your tank school located?

Col. ROCKENBACH. The tactical school is at Camp Benning, and the mechanical school is at Camp Meade.

Mr. ANTHONY. You are training your officers at Camp Benning and your enlisted men at Camp Meade?

Col. ROCKENBACH. We are training the individual. We are training officers and men to handle and operate the tanks. Then they go to the Infantry school at Camp Benning and to the divisions for operation with other troops so that the troops will be trained with the tanks, or, vice versa, the tanks will be trained with other troops.

Mr. ANTHONY. Where do you train the officers for the Tank Corps?

Col. ROCKENBACH. The officers and men are trained at Camp Meade. Up to the present time all the officers and men have been trained at Camp Meade.

Mr. ANTHONY. You spoke of tank schools, using the plural. Does the provision in this bill cover anything more than the school at Camp Meade?

Col. ROCKENBACH. That applies entirely to Camp Meade.

Mr. ANTHONY. Why should not that be tank school instead of tank schools?

Col. ROCKENBACH. I have shown you photographs in order to show the different classes of machines, to show, for instance, the radio machine. This machine has 6-pounder guns. This other machine has 37-millimeter guns, and all of them have machine guns. We operate a machine-gun school, a 37-millimeter gun school, a 6-pounder gun school, light and heavy mechanical schools, light driving and heavy driving, radio, and some other schools.

Mr. ANTHONY. All at Camp Meade?

Col. ROCKENBACH. Yes, sir.

Mr. CRAMTON. In other words, you have a tank university there?

Col. ROCKENBACH. Yes; we have a tank university there, and it is something I have been trying to get you gentlemen to see.

ESTIMATES.

(See p. 1197.)

Mr. ANTHONY. Let us go into the sums of money you are asking for. Last year you had \$79,000 for the payment of necessary civilian employees and for the payment of necessary mechanics to assist in repairing the tanks in the hands of tank units.

Col. ROCKENBACH. That was at the school at Camp Meade; yes.

Mr. ANTHONY. With the exception of the pay of officers and quartermaster supplies and subsistence, and all that sort of thing.

Col. ROCKENBACH. Yes, sir.

Mr. ANTHONY. This year you are asking for a total of how much?

Col. ROCKENBACH. I am asking for a total of \$77,212.

Mr. ANTHONY. And in the second item you are asking for \$7,000 for miscellaneous expenses in connection with the operation of tank schools?

Col. ROCKENBACH. Yes; we are asking for \$7,000 for incidental expenses.

Mr. ANTHONY. That makes a total of \$84,212.

Col. ROCKENBACH. Yes.

Mr. ANTHONY. The increase is principally for the operation of this school?

Col. ROCKENBACH. The operation of the school.

Mr. ANTHONY. It was not in operation last year?

Col. ROCKENBACH. No, sir; and for this reason. I have commenced to get my officers now and I have commenced to get the men. When I returned the Tank Corps had been discharged, except 225 men. That number has increased ten times and we have gone now to 2,500 men. We have a total of 78 officers and they are coming to us as rapidly as the Chief of Infantry can get hold of them. Yesterday I had four to report. My school capacity, with the training I have got to do in the next six months, will be double what has been in any six months before.

Mr. ANTHONY. Do you agree that the tank is an arm of the Infantry?

Col. ROCKENBACH. I do now; yes.

Mr. ANTHONY. At one time was there a different opinion?

Col. ROCKENBACH. Yes. The only objection that there is to the being merged—I, of course, am very keen to make all of my men specialists. It is very difficult, for instance, for you to retain your specialists. Take the radio tank, for example. We developed the best tank radio man in the world. He fears he can not continue on this special work with us, and has applied for a transfer to the Signal Corps. However, we do not lose him entirely.

Mr. ANTHONY. Does he get more pay in the Signal Corps?

Col. ROCKENBACH. No; he does not, but he can follow on his

Mr. ANTHONY. He has more opportunity to carry on his line work.

Col. ROCKENBACH. Yes. The Signal Corps can put him into a radio laboratory where he can study his subject entirely.

Mr. ANTHONY. He is making a specialty of tank work?

Col. ROCKENBACH. The Signal Corps promises to keep him on this work.

Mr. CRAMTON. Of course, that feature of the work is one that might properly be developed ordinarily by the Signal Corps in operation with the Tank Corps.

Col. ROCKENBACH. We got this man originally from the Signal Corps. It is very hard to get them to devote the special attention and time to this special development that it should have. This man gets his radio apparatus and puts it in as compact a state as he can. He has to get it into a tank. He goes to a Signal Corps laboratory where he has the tools and the apparatus with which to do this work and he has made the most compact signal apparatus in the world.

PROGRESS OF TANK DEVELOPMENT.

Mr. ANTHONY. Are we keeping up in our progress with the development of tanks in the foreign services?

Col. ROCKENBACH. I do not think there is anything in the world that will touch our tank.

Mr. ANTHONY. What are the other countries doing in that line?

Col. ROCKENBACH. Here is the chassis of a British machine that it is claimed will make 20 miles an hour across country. But it can not armor that and it is not thought to be a practical machine.

Mr. ANTHONY. What is the purpose of that fast tank?

Col. ROCKENBACH. To get across the artillery-swept zone and spread confusion right in the midst of the enemy.

Mr. ANTHONY. If the tank does not carry any arms——

Col. ROCKENBACH (interposing). That is just the chassis, the body goes on there.

Mr. ANTHONY. Is it not a fact that on the battle fields of France it was demonstrated that when a tank did get into the artillery-swept zone it was put out of business pretty speedily?

Col. ROCKENBACH. We operated 417. We had just 7 hit while in motion.

Mr. ANTHONY. I remember I went over the battle field near Soissons and there were 14 of those tanks, French tanks, that had been with a division of the American Army, and every one of them had been put out of business in the first hour, and they were all lying about the field. They had been punctured by artillery.

Col. ROCKENBACH. I would say they were not handled properly and they stopped. We did not get hit when we were moving.

Mr. ANTHONY. These tanks were all in a perfectly open field?

Mr. SLEMP. Of course, if you sent the tanks in in the night or in a fog or under some protection, they would be very useful.

Col. ROCKENBACH. Yes, and endeavor to keep them going until they get under cover. The British front from Arras north is called the graveyard of tanks, but they operated them in a country where they really had no chance to operate. Men were drowned in the British tanks. We operated a battalion with the British. We lost three tanks which were blown up. The British had reconnoitered the field in front of them, but they had forgotten that two years before they had mined that field themselves, and some British tanks were blown up by their own mines.

Mr. ANTHONY. You feel that with the development of the two types of tanks we are right to date along that line?

Col. ROCKENBACH. I feel with that machine [indicating photograph]——

Mr. ANTHONY (interposing). What is that?

Col. ROCKENBACH. That is the Christie. I feel that with that machine we are going to revolutionize cross-country transportation and fighting. If this machine does what it is claimed it will do, it will take the place of a divisional machine-gun battalion. You can easily see why. The divisional battalion comes up in an emergency. It is the reserve of the division. The men jump out of their carts; they are taking their machine guns up under the most terrible shrapnel and machine-gun fire the enemy can put on them. What chance has that battalion to get up? Very little. With this machine there is no armor-piercing bullet that will hurt the crew at all, and that enables them to give a knockout blow, with the probability of no damage to themselves.

Mr. SLEMP. Are the tanks a part of the Field Artillery?

Col. ROCKENBACH. They are a part of the Infantry.

Mr. SLEMP. They are organized along with the Infantry organizations?

Col. ROCKENBACH. Yes.

Mr. SLEMP. It rather corresponds to a machine-gun company?

Col. ROCKENBACH. It has a cannon and a machine gun.

Mr. SLEMP. It is right on the border line?

Col. ROCKENBACH. The main weapon is the tank itself. It is a demoralizing effect it has by assaulting, by crossing trenches, that counts. If it does not hit a pill box with its guns, it knocks it down and runs over it.

STENOGRAPHERS.

Mr. ANTHONY. I notice you are asking for 9 stenographers at a total expense of \$13,500, 6 at headquarters of the tank center, 2 at the tank school, and 1 in the supply office. Have you always had that?

Col. ROCKENBACH. We had more than that last year, because then we did not have the personnel as well trained as it is now.

Mr. ANTHONY. Do you have to have 9?

Col. ROCKENBACH. We need 2 in the executive office, 2 in the equipment office, and 2 in the personnel office. We handle all personnel matters, and it is impossible to carry that on with the soldiers. He is going out, or may be, and by the time you get him experienced enough to do this work he goes out. The equipment officer of the tank center is a man who handles all of our equipment matters. He also is here in Washington two days a week with the Ordnance technical committee and with the Chief of Infantry.

Mr. ANTHONY. With this Army educational program going on there must be hundreds of stenographers among the enlisted men.

Col. ROCKENBACH. There are.

Mr. ANTHONY. Do you have an opportunity to get the services of those men?

Col. ROCKENBACH. I do not. Take the radio operator, for instance. We made 24 operators in the past year. We simply train those and then they get out. It is the same with the stenographers—the typewriters.

Mr. ANTHONY. There is a demand in civil life for every radio operator they can get?

Col. ROCKENBACH. Every radio operator we can train can get a better job on the outside. Six of the best mechanical men, the tank mechanics, were found physically deficient for retention in the Army, but they do not care about that. They have jobs that pay them twice as much money as the Government can pay them.

Mr. ANTHONY. Do you think that condition will continue?

Col. ROCKENBACH. Of course, there may be enough of these trained after awhile so there will not be a demand for them, but I can place every efficient man in the tanks, and we hold that is true of them.

MACHINISTS.

Mr. ANTHONY. I see you are asking for machinists for work in a tank-repair shop at 80 cents an hour, at a total cost of \$20,032. How do you establish that rate of pay for machinists?

Col. ROCKENBACH. That is the average rate of pay that we had to pay in the last year.

Mr. ANTHONY. That is fixed in accordance with the prevailing rate?

Col. ROCKENBACH. That is fixed in accordance with the prevailing rate of the country, and especially of the locality where they are working.

Mr. ANTHONY. If the price of labor should go down you would reduce that?

Col. ROCKENBACH. We would go with it. The same thing applies to the machinists and the mechanics. We train the soldier and he works right along by the side of these people. As soon as we get him so that he can take the place of the civilian, the soldier gets out, so, in order to keep the school operating I have to have the civilians.

MECHANICS.

Mr. ANTHONY. You also want 20 mechanics?

Col. ROCKENBACH. Yes. They not only are necessary for keeping the school machines we are using at Camp Meade in shape, but every one of them has three or four assistants, soldiers to whom they impart the mechanical instruction.

CHECKERS.

Mr. ANTHONY. You also include in this estimate 4 civilian checkers, at \$100 a month each, making a total of \$4,800 for checkers. Could not enlisted men do that work?

Col. ROCKENBACH. It took all the personnel I could scrape together to put on that work over six months to check up the property. There are so many parts to these machines that it is simply impossible to get the ordinary man to learn to keep any track of them at all. You can not go into the storehouse without a catalogue and get what is wanted out. It is essential that we have men who are trained right on that work and who know it. Most of these are old Ordnance men, simply men who learn these parts and keep the details and attend to that work.

INCIDENTAL EXPENSES.

Mr. ANTHONY. I notice you are asking \$7,000 for incidental expenses.

Col. ROCKENBACH. Yes, sir. I have divided that as follows: Services of expert civilian instructors in gas engines, \$2,500. I have lost eight officer gas instructors since August, 1919. Just as soon as we get them efficient so they are valuable to us they get jobs on the outside. We can not hold them.

Then this item also includes the purchase of special apparatus and material for instruction of enlisted specialists, bench and lathe men, radio experts, oxyacetylene welders, photographer, gas-engine mechanics, electricians, etc. I have allowed \$1,000 for that.

Then I have allowed \$1,500 for the purchase of special instruments and the employment of temporary technical services in the department of tank engineering. I have also allowed \$1,000 for the purchase of professional books dealing with military and technical subjects for the use of students and for the tank school library.

I would like to say there is only one really valuable book on that subject that has come out of the war, a British publication, which costs us \$9 a copy. There is very little demand for it, so it is pretty expensive.

I have also allowed \$1,000 for the purchase of unforeseen small items which can not be ordinarily furnished by the supply depart-

ments and for small expenses in connection with the proper operation of the tank school.

In view of the fact that the tank school is undergoing organization so as to enable it to accommodate a large number of officers and enlisted men and because of the fact that the various lines of work have not yet been definitely settled in every respect, it is impracticable to give more details as to the purpose for which the \$7,000 incidental expenses is needed.

I can also show you how I spent the money last year. I have an enumeration of that if you desire it.

Mr. ANTHONY. I think if you put in the record the itemization of the contemplated expenditure under this appropriation that will cover it.

Mr. SLEMP. I think you also had better put in a statement of expenditures last year.

Col. ROCKENBACH. I will be glad to do that.

(The statements referred to are as follows:)

Memorandum containing supporting data for certain estimates submitted for use by tank section, Infantry.

(A) Tank service:

For the payment of the necessary civilian employees to assist in handling the clerical work at the headquarters, tank center, and the tank school; and for the payment of the necessary mechanics to assist in repairing and preserving equipment in the hands of tank units \$7,000

Divided as follows:

Salaries—

9 stenographers, at \$125 per month.....	1,125
6 at headquarters, tank center—	
2 in executive office.	
2 in equipment office.	
2 in personnel office.	
2 at tank school.	
1 in supply office.	
5 typists, at \$108 per month.....	540
1 at center headquarters.	
1 in supply office.	
3 at tank schools.	
Total salaries.....	\$1,665

Wages—

10 machinists (for work in the tank school shop), at 90 cents per hour (313 days per year).....	2,817
20 mechanics (for work in tank repair shop) at \$135 per month.	2,700
These machinists and mechanics are not only necessary for performing essential work but also for imparting instruction to enlisted men who later will be required to perform similar work and eventually replace these civilian employees.	
4 checkers (for checking and handling property in the offices of the supply and the utilities officers), at \$100 per month.....	400
Total wages.....	\$5,917

(B) Incidental expenses for the tank school..... \$7, 000

This amount is the minimum considered necessary for incidental expenses in connection with the operation of the tank school. This amount is desired to cover small and numerous items of expense in connection with the conduct of the tank school and for the specialized training of the commissioned and enlisted personnel. The indicated funds will provide means for the theoretical and practical instruction at the tank school by the purchase of textbooks, books of reference, scientific and professional papers, purchase of a limited number of modern instruments and of sufficient material for theoretical and practical instruction, and for the employment of the necessary temporary technical and special services of individuals.

Divided as follows—

Services of expert civilian instructors in gas engines.....	2, 500
Purchase of special apparatus and material for instruction of enlisted specialists (bench and lathe men, radio experts, oxyacetylene welders, photographer, gas-engine mechanics, electricians, etc.).....	1, 000
For the purchase of special instruments and employment of temporary technical services in the department of tank engineering.....	1, 500
For the purchase of professional books dealing with military and technical subjects for use of students and for tank-school library.....	1, 000
For purchase of unforeseen small items which can not ordinarily be furnished by the supply departments and for small expenses in connection with the proper operation of the tank school.....	1, 000

In view of the fact that the tank school is undergoing organization so as to enable it to accommodate a large number of officers and enlisted men and because of the fact that the various lines of work have not yet been definitely settled in every respect, it is impracticable to give more definite details as to the purposes for which the \$7,000 is needed.

How money appropriated for Tank Service for 1921 has been and will be spent.

(A) Amount appropriated for "Tank Service," 1921.....	<u>\$79, 000</u>
(B) Approximate amount expended for period July 1 to Nov. 30, 1920, for hire of machinists, mechanics, stenographers, typists, checkers....	32, 500
(C) To be expended during period Dec. 1, 1920, to June 30, 1921, for hire of machinists, mechanics, stenographers, typists, checkers.....	46, 500

NOTE I.—Machinists and mechanics are employed in tank repair shop in maintaining tank equipment in service condition.

NOTE II.—Stenographers and typists in various offices of Tank Center Headquarters, tank school, and offices of supply and utilities officers of Tank Center. Checkers in offices of supply and utilities officers.

MISCELLANEOUS EXPENSES.

How money appropriated for the tank school for 1921 has been and will be spent.

(A) Amount appropriated, 1921.....	<u>\$5, 000</u>
(B) Approximately expended for period July 1 to Nov. 30, 1920, for purpose of textbooks, books of reference, professional papers, repair of experimental instruments, materials for practical instruction, materials for fitting rooms for instruction purposes.....	1, 200
(C) To be expended during period Dec. 1, 1920, to June 30, 1921, for—	
Service of civilian instructors in gas engines and tank engineering..	2, 000
Special apparatus and material for instruction of enlisted specialists, such as bench and lathe men, radio experts, oxyacetylene welders, photographers, gas-engine mechanics, electricians.....	1, 000
Professional books, books of reference, etc.....	400
Equipping lecture and section rooms.....	400

BALANCE UNEXPENDED.

Mr. SLEMP. Have you any unexpended balance out of the \$79.00 that was appropriated for 1921?

Col. ROCKENBACH. I think it will all be spent by the end of the fiscal year. The amount expended from July 1 to November 3, 1920, is \$32,500, and the remainder is already laid out.

Mr. SLEMP. You expect to obligate the full amount of the appropriation?

Col. ROCKENBACH. It is necessary to keep me going to June 30, 1921.

Mr. SLEMP. Unless you have that amount you could not go on with your present operations.

Col. ROCKENBACH. No; I would be put out of business right now.

PERSONNEL AT THE MINIMUM.

Gen. LORD. I invite the committee's attention to the chart to illustrate the method of classification. The Tank Service is carried as a constant service, as not being affected by the size of the Army.

Mr. SLEMP. In other words, whether the Army is going to be 283,000 or 175,000 has no effect on this appropriation?

Col. ROCKENBACH. We are down now to a minimum. We have a skeleton organization, and the whole idea is to have a nucleus which we can expand. For instance, there are four sections of a mechanical company and if we went to war to-morrow, each one of those sections would be expanded into a company. I have no fear of getting men. We have 2,000 officers on our correspondence list who were tank men trained during the war. In addition to that we had over 10,000 men who are mechanics ready to join the tanks, and we believe we can expand very rapidly.

Mr. SLEMP. You could expand in six months to take care of an Army of what size?

Col. ROCKENBACH. I could expand in six months a great deal more rapidly than I could get the machines. I could take care of three armies. We have the proper number for an army now, that is, personnel of about 2,500. In other words, we could treble the present organization in six months.

PROPORTION OF OFFICERS TO TANKS.

Mr. SLEMP. What is the proportion of the officers of the Tank Corps to the number of tanks?

Col. ROCKENBACH. It varies with the machine. With the heavy tank, each machine has an officer in command. With the light tank there is an officer to a platoon of five tanks.

TANK CONSTRUCTION.

(See p. 1184.)

Mr. SLEMP. Considering our present manufacturing facilities for tanks, you do not need to train a great many officers there?

Col. ROCKENBACH. This is the first of those machines. We have built 15 of those machines. When we get these, along with the

nachines, we get the jigs and tools and everything that is necessary to put the machines into rapid production. It has taken 18 months of designing and drawing to get that machine into production. Having all of the designs and the tools, this company could turn out that machine at about the rate of 10 a week.

Mr. SLEMP. Is that under Government manufacture?

Col. ROCKENBACH. It is under contract.

Mr. SLEMP. Could you not utilize the various arsenals of the country for that purpose?

Col. ROCKENBACH. We are. We have another machine having the same weight——

Mr. SLEMP (interposing). It might be well, as a matter of general policy, to have the work done in private factories and in Government establishments both?

Col. ROCKENBACH. I think it is a great deal better, because you commercialize it. I have shown you a picture of a 155-millimeter gun mounted on that chassis. We are going down to vehicles as low as a ton on that same chassis to get a standard cross-country chassis. In a few minutes the track can be taken off and it can run a gun from Baltimore to Washington at the rate of 35 miles an hour on the road, and if we can standardize that chassis for the Army and get it down in the Southwest and standardize it for commercial use, the problem of rapid production for war is solved. We hope to have this chassis in use this year.

Mr. SLEMP. You could work this out in connection with trailers and tractors, with that chassis all the way through?

Col. ROCKENBACH. We want to commercialize the chassis and get it in general use. We have put a tank on this chassis. We have put a 155-millimeter gun on it, and the engineers have put a searchlight on it, and the Artillery have put a 75-millimeter gun on it. Everything of great weight that goes along with the Army we hope to get on this chassis. Consider a division with cross-country transportation; that division can move toward the front, and it can move rapidly.

Mr. ANTHONY. Has that big gun been fired from that chassis with a full charge of ammunition?

Col. ROCKENBACH. Yes; it has.

Mr. ANTHONY. Who manufactured that chassis for you?

Col. ROCKENBACH. The Front Wheel Drive Co., of Hoboken, N. J.

Mr. ANTHONY. None of them has been made for the Government on contract?

Col. ROCKENBACH. This is made on contract.

Mr. ANTHONY. Out of what appropriation?

Col. ROCKENBACH. The Ordnance Department did that this year.

PAY OF CLERICAL HELP.

Mr. ANTHONY. Colonel, I notice that in this appropriation you pay directly for the clerical help in the Tank Corps.

Col. ROCKENBACH. Only in the headquarters. There is no paid clerical help in any organization.

Mr. ANTHONY. Would it be any more advantageous to have the clerical help in the Tank Corps directly under the Quartermaster General, like the clerical help of the Infantry?

Col. ROCKENBACH. I think we will work down to that eventually. I have not been able to do anything except what I could do with the force I had right there.

Mr. ANTHONY. If we do not appropriate in this item for clerical help for the Tank Corps it would be furnished you probably through the usual channels, would it not?

Col. ROCKENBACH. I do not think it is usual—Gen. Lord can tell you about that. He will not furnish me anything unless I have money.

(Gen. LORD. Each of the special services has its own help.

Mr. ANTHONY. The Tank Service is a part of the Infantry and the Infantry gets its clerical help—

(Gen. LORD (interposing). It gets its headquarters help from legislative bill.

Mr. ANTHONY. Where does it get its other help?

(Gen. LORD. This is headquarters help at Camp Meade. The Infantry, as Infantry, has no clerical help in the field.

Col. ROCKENBACH. They would not let any of the money appropriated last year be used for the employment of persons in the office of the Chief of Infantry. He came in new and had not anticipated the needs of his arm and the money could not be used for clerical help in his office, and I understand that applies throughout.

(Gen. LORD. Civilians paid on the legislative roll for duty in executive bureaus are not available for service in the field.

Col. ROCKENBACH. We are a new service. We have changed the tank and put new guns on it. We tried out every new feature of the machine. We have got to make out a nomenclature table and a table of instructions for its use, and when we send the model machine out we have to have this data along with it. It is post-school work.

NUMBER OF COMPLETED TANKS.

Mr. ANTHONY. How many completed tanks have you in possession of the Army and how many contracts that were made during the war but are not yet completed were permitted to go to completion?

Col. ROCKENBACH. All contracts made during the war have been completed.

Mr. ANTHONY. All contracts?

Col. ROCKENBACH. All contracts. They were completed some time before. The British components of the Anglo-American tanks were sent to the Rock Island Arsenal.

Mr. ANTHONY. That is the big tank?

Col. ROCKENBACH. That is the big tank; and our components were sent there and they were assembled at the arsenal. There was no further contract on it. I attempted to get out of everything I could with the British. They actually had manufactured, under an interallied agreement, components for 100 tanks.

Mr. ANTHONY. You proceeded to have them assembled?

Col. ROCKENBACH. We had to take them and they were sent to the Rock Island Arsenal and they have been assembled there. That contract was closed some time in February, 1919.

Mr. ANTHONY. Had we also proceeded with the manufacture of the chassis and bodies of the tanks?

Col. ROCKENBACH. We had them all ready. In March, 1919, we would have had the greatest tank force in the world. We would unquestionably have had 500 Mark VIII tanks ready for battle.

Mr. ANTHONY. How many completed tanks have you now?

Col. ROCKENBACH. We have 100 of the Mark VIII, in the neighborhood of 600 of the 6½-ton, and 225 French tanks bought during the war. These machines, we hope, will only be used for training, and before the next war comes we will have a very superior tank.

Mr. ANTHONY. How many tanks have you completed, altogether?

Col. ROCKENBACH. We have approximately 1,000.

UNCOMPLETED CONTRACTS.

Mr. ANTHONY. Are there any other contracts that are in process of completion at this time?

Col. ROCKENBACH. No contracts except for this machine, the new machine [indicating photograph]. The other new machine is being manufactured by the Ordnance Department in an arsenal. This is the only tank contract that there is.

Mr. ANTHONY. Has the contract been let for any considerable number of those?

Col. ROCKENBACH. No; we do not propose to get any considerable number. This tank we know is out of date. [Indicating photograph.]

Mr. ANTHONY. That is the big tank?

Col. ROCKENBACH. Yes. This tank we know is out of date. If we develop as we hope to develop we would be foolish to load up with this, because we will advance. This is going to be worked to absolute exhaustion. If it stands the test we will attempt to complete 15; enough to equip a company. There will not be more than that.

Mr. ANTHONY. Where are the different tanks stored?

Col. ROCKENBACH. Most of them are at Camp Meade.

Mr. ANTHONY. Under proper protection?

Col. ROCKENBACH. Under as good protection as we could get, under sheds and tarpaulins.

ESTIMATES.

(See p. 1187.)

Mr. SLEMP. The average amount of money asked for in these schools in the other branches of the service has been about \$30,000 or \$35,000. The Infantry school has asked for \$47,300. That has been the maximum. They have a very much larger number of officers to train in their various organizations than you could possibly have in the Tank Service. Have you made a comparative study of your situation with reference to theirs, so that if the amount you are asking for is given you we would not be appropriating in a disproportionate amount for the various schools?

Col. ROCKENBACH. I have not made that study, and I do not think there is any comparison, for this reason: Take the man power of the heavy tank. You can train 150 officers and the men necessary to handle that artillery or machine guns with little apparatus. Most of my allowance here is for machinists and mechanics of a grade to instruct my men. We can not hold the ones we do instruct. I have

got to have a very different grade of men and I have got to have mechanics which you do not have to have in other services.

Mr. ANTHONY. Your arm is purely a mechanical arm?

Col. ROCKENBACH. It is mainly a problem of mechanical engineering. I put in a statement yesterday to the Chief of Infantry to the effect that this service is good or bad according to whether it is properly organized mechanically.

TRANSLATORS.

Mr. SLEMP. I notice that you are not asking for any translator. How do you manage to get the translations that you need?

Col. ROCKENBACH. Nearly everything on this subject comes from the French.

Mr. SLEMP. Where do you get your translating done?

Col. ROCKENBACH. Right in my own office.

Mr. SLEMP. How do you manage that? Do you get that done through the enlisted men?

Col. ROCKENBACH. No; I detail either an enlisted man or an officer and I get it out in a short time. For instance, one publication we are using in our schools we received eight months ago and translated. If we are going to keep up with progress and get it when it is new we have to do this.

Mr. SLEMP. Take a French publication. Would you make a review of that publication or translate it in full and get out mimeographed copies of the translation?

Col. ROCKENBACH. The way we have been doing that is: We have a tank board composed of a few officers. We get together and a free translation is made. Then we decide whether that is of value, and have half a dozen officers who can do the work translated as quickly as the stenographer can write it.

Mr. SLEMP. That is quite a large proportion of the work that stenographers do?

Col. ROCKENBACH. It is a portion. We have had one officer and one typewriter busy in the last two weeks on that work alone.

SIZE OF GUNS.

Mr. Sisson. In reference to the size of the guns you contemplate mounting on these tanks, how large a gun do you expect to mount?

Col. ROCKENBACH. That is a 6-pounder; that is a 2.24-inch gun in comparison with the 3-inch gun.

Mr. Sisson. Does your tank take care of the recoil and shock so that you can realize now that it is practicable?

Col. ROCKENBACH. This is the tank gun [indicating on photograph]. You want to hit a pill box or a machine-gun nest with a cannon. As soon as the crew get out you want to put a machine gun on it. If we had a cannon in one tank and a machine gun in another, we could not get that coordination, and so, at the beginning of the war, we decided to put the cannon in the same tank with the machine gun, so that those guns can work in coordination. The machine gun is along here [indicating on photograph] and the cannon is here, and one man can operate them. In other words, we can operate the cannon and the machine gun with one man.

Mr. Sisson. That recoil, then, is all taken care of?

Col. ROCKENBACH. It is all taken up.

Mr. Sisson. Then the development of the size of the gun is only limited by the increased development in the size of the tank?

Col. ROCKENBACH. I think it is big enough.

MONDAY, JANUARY 17, 1921.

AIR SERVICE.

STATEMENT OF MAJ. R. WALSH, MAJOR, AIR SERVICE.

FOR THE PURCHASE OF LAND AT VARIOUS MILITARY AND FLYING POSTS.

Mr. ANTHONY. Maj. Walsh, at the bottom of page 61, the item for barracks and quarters, you are asking for an authorization to make a number of purchases of land at various military and flying posts, and also quite a large item for the purchase of the marine engine and boiler plant at Richmond from the Emergency Fleet Corporation. I wish you would tell us about the necessity for the expenditure of \$356,700 for the purchase of land adjoining the military reservation at Fort Bliss.

Maj. WALSH. Might I state there, Mr. Chairman, that I have a short statement of most of those small items; shall I submit it for the record?

Mr. ANTHONY. We would like to have placed in the record a very short statement in regard to each paragraph.

Maj. WALSH. Yes, sir; there are three sheets containing an explanation of those small items.

Mr. ANTHONY. We would like to have some explanation in regard to this large expense at Fort Bliss.

Maj. WALSH. The expenditure at Fort Bliss is in connection with the other branches of the service, Mr. Anthony. We are interested because it will provide us with a permanent airdrome for use in connection with the operations which are now going on along the border and which we believe will continue for some time.

Mr. ANTHONY. Is this the same tract of land which the Government has been leasing during the war at a nominal rental of \$1 a year or something like that and for which an attempt was made to procure authority to purchase during the last year?

Maj. WALSH. Yes, sir; I believe that that is the tract in question.

Mr. ANTHONY. The same tract?

Maj. WALSH. Yes, sir; this item was contained in a previous bill with request for authority to purchase.

Mr. ANTHONY. Well, have the Aviation Corps any landing place at Fort Bliss now?

Maj. WALSH. We have, and are using, a landing place there, and we have a number of other aerodromes under lease along the border at nominal rentals. This is the only place where, at the present time, we contemplate acquiring a permanent interest. We included this item in our own real estate requirement, but a letter from the Director of Operations of the General Staff stated that this item would

be included with the requirements of the rest of the Army and that we would be brought into it, not as the principal factor, but as a subordinate factor in the purchase of this land. It is not to be used exclusively as an aviation field but will be also used as a drill and maneuver ground, in connection with Fort Bliss.

Mr. ANTHONY. All right, if you will make a short statement in regard to that for the record.

(Statement requested is as follows:)

The Air Service is operating airplanes and airships in connection with border patrol operations from small airdromes adjoining the Fort Bliss Military Reservation. Land suitable for airdromes other than high-priced agricultural land is very scarce in this locality. It is considered very desirable that this tract be permanently acquired to serve the purpose just referred to and, in addition, as one of the principal trans-continental air ports. It is not contemplated that a flying field be established at this point—simply temporary facilities.

Will you explain this item of \$350,000 for the purchase of a marine engine and boiler plant at Richmond, Va., from the Emergency Fleet Corporation?

Maj. WALSH. I think that can be better explained, sir, by Mr. Van Nostrand, as it is a lighter-than-air project.

Maj. WALSH. May I make a short verbal statement, Mr. Chairman, about some of the other items?

Mr. ANTHONY. Yes, sir.

Maj. WALSH. There is an item of \$1,000 for the purchase of land for a septic tank at Mitchel Field, N. Y. This item may be omitted as a satisfactory settlement has been arranged with the owners to obviate the necessity of purchasing that tract.

The item of \$3,000 for the purchase of approximately 7 acres of land for a railroad right of way from Mount Clemens, Mich., to Selfridge Field. Since the date of the estimate there have been judgments and awards made which have changed the amount. The War Department Claims Board has awarded \$5,519.76 for the claims of owners for damage resulting from past use of this land, and an option has been secured from the owners which carries a purchase price of \$10,773.

Mr. ANTHONY. \$10,000?

Maj. WALSH. \$10,773 to acquire——

Mr. ANTHONY. That would include a settlement of the claim?

Maj. WALSH. It will not, sir; those two sums will have to be added together, making a total of \$16,292.76, to settle all claims and to acquire the land.

Mr. ANTHONY. Where did you get the idea that it could be purchased for \$3,000 originally?

Maj. WALSH. I do not know just who should take the responsibility for that particular item, Mr. Chairman.

Mr. ANTHONY. What has the land been used for?

Maj. WALSH. It has been used as a railroad right of way.

Mr. ANTHONY. A railroad right of way?

Maj. WALSH. It is a long strip of land not quite 2 miles in length and is used as a railroad right of way to Selfridge Field. It was occupied under some agreement with the chamber of commerce during the war; and it is necessary now to purchase the land.

Mr. ANTHONY. The Government built a railroad to Selfridge Field?

Maj. WALSH. A spur track, just simply to feed from the main line.

Mr. ANTHONY. What sort of land does it run through? Is it farm land?

Maj. WALSH. I think it is, sir.

Mr. ANTHONY. That is a pretty high price for farm land, then, is it not?

Maj. WALSH. This \$10,000 is for a tract of 7 acres.

Mr. DENT. How many acres?

Maj. WALSH. Seven. It is stretched out through different owners and makes necessary the acquirement of a small portion from a large number of owners, and it has resulted in cutting a large number of farms practically in two, with consequent decrease in value to one of the portions, which must be compensated for in damages.

Mr. ANTHONY. You might put in the record a statement of what the land is worth an acre that this railroad right of way goes through.

Maj. WALSH. Yes, sir.

Mr. ANTHONY. It strikes me that it is a rather extravagant price for a railroad right of way.

Maj. WALSH. I believe that the damage to the farms amounts to a very large part of the total; in fact, over \$9,000 out of the \$10,773 involved in the purchase price.

Mr. ANTHONY. We thank you for your statement, Maj. Walsh.

Name.	Total acreage, each owner.	Area of right of way.	Value of land per acre.	Value of land of right of way.	Area of land injured by right of way.	Dam- age per acre.	Amount of damage.	Total of damages to be paid.
Walter J. Dalby et al.....	166.41	0.88	\$150	\$132.00	86.4	\$10.00	\$864.00	\$996.00
George Keiffer et al.....	210.00	.69	190	131.10	109	12.50	1,362.50	1,493.60
Richard Pravost et al.....	60.00	.406	200	81.20	60	15.00	900.00	981.20
Samuel Parreyt et al.....	114.00	.4	175	70.00	50	13.50	675.00	745.00
John A. Merritt.....	125.00	.55	150	82.50	26	12.50	325.00	407.50
George Beaufait.....	120.00	.638	150	95.70	75	10.00	750.00	845.70
Fred Harms, sr., et al.....	72.00	.5	200	100.00	72	15.00	1,080.00	1,180.00
Fred K. Lenfestey et al.....	98.00	.92	200	184.00	98	15.00	1,470.00	1,654.00
Gertrude Jobsa.....	114.00	.38	175	66.50	50	13.50	675.00	741.50
Mas. Lefevre.....	120.00	.53	150	79.50	26	12.50	325.00	404.50
Elizabeth Peltier.....	111.00	1.37	200	274.00	70	15.00	1,050.00	1,324.00
Total.....	1,310.41	7.264	.....	1,296.50	722.4	.....	9,476.50	10,773.00

RIGHT OF WAY FOR SELFRIDGE FIELD.

The railroad track connecting Selfridge Field with Mount Clemens sugar factory runs across 11 parcels of land which are under separate ownership. The right of way itself is 30 feet in width. The War Department Board of Appraisers has considered the land values and made a finding in favor of each landowner.

The well-known rule of damages applied in condemnation proceedings has been applied in making this award, namely, the rule of compensation to the landowner not only for the area actually taken but for the diminished value of the owner's other and consequent upon the taking of the strip for a right of way. In these cases that portion of each parcel which lies beyond the railroad and which is cut off by the railroad from the homestead is the portion which is regarded as being damaged by the taking of the right of way.

The attached tabulation shows the result of that finding and pertains to the permanent acquisition of the land by the Government as distinct from the award of \$5,519.76 which was based on claims for past use of this strip of land by the Government and on damages accruing during such use.

AIR SERVICE ESTIMATES.

(Item, barracks and quarters.)

For the purchase of 4.6 acres of land for septic tank at Souther Field, Americus, Ga., \$550.

Project: Septic tank for Souther Field.

Owner: Morgan H. Grace.

Space: A plat of ground 400 by 500 feet.

This piece of land lies 646 feet east of the northeast corner of Souther Field. The field itself, on which is located an aviation general supply depot, is Government land purchased July 5, 1919, for the sum of \$32,534.40. The septic tank was constructed before the field was purchased and after it was completed it was found that the owner would not sell except for a ridiculously exorbitant price. The land for the field was purchased at the rate of \$80 per acre. Proceedings to condemn the piece occupied for the septic tank were instituted on December 24, 1918. The statute which authorizes such a proceeding gives a right of possession to the Government from the date of its commencement, and the land has been occupied since then by virtue of said provision of the statute.

The condemnation proceeding is still pending and will be completed as soon as an appropriation is made to cover the award. The amount, \$550, is merely an estimate intended to represent the reasonable market value of the land occupied.

For purchase of railroad rights of way to Carlstrom and Dorr Fields, Arcadia, Fla., \$5,000.

Project: Railroad right of way to Carlstrom and Dorr Fields.

Owners: Twenty-four.

Space: Strip of land 30 feet wide and about 18 miles long.

This railroad from Arcadia runs a distance of about 8 miles in a southeasterly direction to Carlstrom Field; thence in a northerly direction about 10 miles to Dorr Field. It was constructed by the Atlantic Coast Line Railroad Co. at the request of the Arcadia Commercial Club. Permits to cross the land were secured by the commercial club and but few of them were reduced to writing. The commercial club has ceased to function, and negotiations have been going on for several months to secure legal grants to easements running to the United States. It is to provide the payment of these easements that the estimate of \$5,000 is made. Some portions of the land crossed by this railroad are much more valuable than other portions, and it is at present impossible to give an accurate estimate. Propositions have been secured covering about half of the line at a total expense of \$1,770. On some of the remaining portions over which the railroad runs it has not yet been possible to reach an understanding as to the cost of an easement grant and it is believed that in some instances condemnation proceedings will be required.

Carlstrom and Dorr Fields are both Government owned, having been purchased June 28, 1919, at the price of \$80 per acre. They constitute a permanent part of the Air Service and can not be operated without a railroad track connecting them with the main line. The railroad itself is in need of considerable repair work and it is not deemed desirable to make an extensive outlay until the easements have been acquired.

For purchase of 3.88 acres of land along the west side of Scott Field, Belvidere, Ill., \$776.

Project: Addition to Scott Field.

Owners: F. B. Smiley, Adolph Spies, and Johannah Reuss.

Space: Smiley, 2.11 acres; Spies, 1.04 acres; Reuss, 0.73 acres.

Purchase price, \$776.

These three parcels constitute a strip of land lying along the west side of Scott Field, occupied by a fence and a drainage ditch. The spur railroad track supplying Scott Field runs along the westerly edge of the reservation and the ditch and fence run beyond the railroad. In order to move the ditch and fence back within the reservation line of the field, it will be necessary also to remove the railroad. The widest part of this strip is at the southerly end, where it is approximately 43 feet in width. At the north end it is 24 feet in width. A triangular-shaped piece of land for the portion of the spur track has previously been condemned because of defective title and an appropriation of \$100 to cover the cost of that parcel was made by an act of Congress approved February 28, 1920.

The owners of these three parcels have agreed to sell at the price of \$300 per acre. They are now under lease for a total rental of \$46.56 per year, which is 6 per cent of the valuation.

For the purchase of land for septic tank, Mitchel Field, Long Island, N. Y., \$1,000.¹

Since the estimate was submitted an arrangement has been made to have the excavation filled in by personnel and equipment at Mitchel Field, which arrangement is satisfactory to the owner.

This item may therefore be disregarded.

For the purchase of 7.264 acres of land for railroad right of way at Mount Clemens, Mich., \$3,000.²

Project: Railroad right of way connecting Selfridge Field with Mount Clemens.

Owners: Eleven.

Space: 7.264 acres.

A railroad 2 miles in length was constructed from the end of a switch track owned by the Mount Clemens Sugar Co. to the western limit of Selfridge Field under a verbal promise made to the owners of the land that compensation would be made for its use and the consequential damages.

Since the estimate was made the claims of the owners have been passed upon by the War Department Claims Board, appraisal section, and the amount of the award of that board is \$5,519.76. This does not include the fee value of the land or consequential damages to other lands by reason of the taking of the strip for railroad right of way.

The fee value of the land has been fixed by the same board at the sum of \$10,773.

The act of June 4, 1920, appropriated the sum of \$190,000 for the purchase of the land of Selfridge Field and that purchase is now in process of completion. The plan followed thus far is to pay the respective owners the amounts awarded for use and occupation of the land and to secure leases from each of them, which lease is to contain an option to purchase for a price which has already been fixed by the said board. In order to carry forward this plan it will be necessary to change the estimate of \$3,000 to the sum of \$16,292.76 if the fee is to be secured.

For the purchase of 2.42 acres of land for railroad right of way at Rantoul, Ill., \$1,210.

Project: Right of way to Chanute Field.

Owner: Fred Kopmann.

Space: 2.42 acres.

Purchase price, \$1,210.

This strip of land was taken October 1, 1918, and has since been occupied for a railroad switch connecting Chanute Field with the main line. A verbal agreement was made with the owner of the land for a reasonable compensation.

A lease of the land was secured covering the fiscal year 1921 at the rate of \$84.70 per annum which lease contains an option to purchase for \$500 per acre. An estimate of \$1,210 represents that purchase price.

Chanute Field is on Government-owned land which was purchased pursuant to the appropriation act approved February 28, 1920, for the sum of \$208,000.

The strip of land in question was under a different ownership from that of the field itself.

Inquiry in the locality of Chanute Field reveals the fact that land in that vicinity has a market value for farming purposes between \$450 and \$600 per acre.

For the purchase of 3 acres of land for Balloon Observation Station, Los Angeles, Calif., \$6,000.

Project: Martin's Camp Balloon Observation Station.

Owner: Pasadena & Mount Wilson Toll Road Co.

Space: Three acres.

This observation station is now in use as part of the Army Balloon School at Arcadia, Calif. It is held under a lease with Pasadena & Mount Wilson Toll Road Co. at the rate of \$2,100 per year which lease includes the right to an unlimited use of the toll road between Mount Wilson and Pasadena. This observation station is considered an essential part of the balloon school at Ross Field.

It is believed that it would be good economy to purchase the camp consisting of 3 acres and a perpetual privilege of using the toll road if such purchase can be accomplished for a reasonable sum and the amount of \$6,000 estimated, is considered reasonable. All attempts made to secure a lease of the property and toll road privilege for a less amount than \$2,100 per year have been unsuccessful.

For the purchase of approximately 350 acres of land at Ream Field, San Diego, Calif., \$35,000.

Project: Ream Field.

Owners: Numerous.

Area: Three hundred and fifty acres.

¹ This to be omitted as unnecessary.

² This amount must be increased (by reason of awards made since estimate was submitted) to \$16,292.76.

The land occupied and known as Ream Field has been held by the Government since July, 1918. No rent or other compensations to the owners have ever been paid.

The acreage actually occupied during a considerable portion of the time is approximately 1,300. The land being owned by more than 100 different persons and title to some of the parcels being considered doubtful, a proceeding was instituted to condemn a portion of the land for temporary use. That proceeding resulted in a finding by the special master, appointed in the United States District Court for the Southern District of California, which report is dated June 23, 1920. The special master made award to 41 different owners, some of whom hold titles to several parcels. A total of the awards is \$11,466.14 which covers only the use of the land between July 1, 1918, and June 30, 1921. In said report there are enumerated 275 lots and 465 acres not divided into city lots. Forty acres are declared to be without reliable value.

A representative of the War Department is now on the ground securing options from the land owners and it is believed that an estimate of \$100 per acre is fair.

The award, above referred to, for use of the land is not included in the estimate for purchase.

For the purchase of marine engine and boiler plants at Richmond, Va., it is proposed by the Emergency Fleet Corporation, \$350,000.

Project: Airship school and storage depot.

Owner: United States Shipping Board Emergency Fleet Corporation.

Space: 11.771 acres.

Purchase option: \$350,000.

The marine boiler plant, located near Richmond, Va., was constructed on land which cost \$47,437.50. There have been erected six buildings, namely, a large boiler shop, administration building, service building, garage, power house, and locomotive house. There is a railroad switch connecting the plant with the main line. A re-inventory of the plant shows a total valuation of \$1,281,228.97.

Negotiations have been had with the United States Shipping Board Emergency Fleet Corporation resulting in an agreement which has been reduced to writing in the form of a lease containing an option to purchase and executed by the United States Shipping Board, the terms of which are that the plant including the land and a large portion of the equipment shall be turned over to the War Department for Air Service use, for the rental of \$2,000 per month with an option to purchase the plant and equipment for the sum of \$350,000; any money paid in the form of rental to be deducted from the purchase price. That written agreement executed by the Shipping Board is now before the Secretary of War for formal approval.

The main building, which was intended for a boiler shop, is of brick and steel construction, 600 feet long and 160 feet wide. It has a clear center section 80 feet wide and 63 feet high. It is perfectly adapted as a large hangar for nonrigid airships which are used for instructions of airships pilots and crews.

MONDAY, JANUARY 17, 1921

STATEMENT OF MAJ. P. E. VAN NOSTRAND, ACTING CHIEF BALLOON AND AIRSHIP DIVISION, AIR SERVICE.

PURCHASE OR TRANSFER OF EMERGENCY FLEET CORPORATION PLANT AT RICHMOND, VA.

Maj. VAN NOSTRAND. In order that the committee may visualize the situation and probably save a great deal of time and space on the record, I would like to submit those two photographs for your consideration.

Mr. ANTHONY. This is a plant constructed during the war by the Government?

Maj. VAN NOSTRAND. This plant, as I understand, Mr. Chairman, was constructed and finished just about the time of the signing of the armistice; I believe it has never been used by the Emergency Fleet Corporation; the installation was not completed. The prop-

sition from the Air Service point of view is to secure this property to use the main building, which you see in the photograph, which is 600 feet long by 125 feet wide, for an airship hangar. It is absolutely essential for our program to train airship pilots; by that we mean dirigible balloon pilots. These pilots must be trained on small ships and graduated onto larger ships, and that necessitates a number of smaller sized ships. This work is now being done at Langley Field, the only place where we have a hangar large enough to hold these ships. This hangar will be needed for the airship *Roma*, which we are now purchasing from the Italian Government; it is of the semi-rigid type, with the largest capacity of any airship of that type in the world, and the Langley Field hangar is the only place we can keep this big ship; but it is absolutely essential that we have some place to keep these smaller ships for the training of air pilots, and the only building available at anything less than \$1,000,000 is this plant at Richmond.

Mr. ANTHONY. How much land is there in that plant?

Maj. VAN NOSTRAND. About 12 acres.

Mr. ANTHONY. Is that enough for the operation of these airships?

Maj. VAN NOSTRAND. With the adjoining tract, which will not be developed for several years, it will be. I may be wrong in the figures, because statements that I have here do not give me the entire acreage.

Mr. ANTHONY. What was the cost of the plant?

Maj. VAN NOSTRAND. The cost of the plant, as given by the Shipping Board, was \$1,218,128.

Mr. ANTHONY. That is for the ground and buildings?

Maj. VAN NOSTRAND. No; it is for the buildings alone; that is simply a schedule of inventory of the buildings. There are several buildings, including an administration building, service building, power house, locomotive house.

Mr. ANTHONY. What did the land cost?

Maj. VAN NOSTRAND. I have not any figures on that, sir.

Maj. WALSH. I can supply that; revised cost, \$47,437.50. That acreage is right.

Mr. ANTHONY. And you intend to use this to house the lighter-than-air craft?

Maj. VAN NOSTRAND. To house airships for conducting out airship pilots' school.

Mr. ANTHONY. This will house the largest type of balloon or airship that you propose to fly?

Maj. VAN NOSTRAND. No, sir; it will not house the largest type, but it will house the largest type of training ship that we will need; it will take care of 5 or 6 smaller ships, and provide the only way we can care for this work.

Mr. ANTHONY. Are you using this property at the present time in your proposition?

Maj. VAN NOSTRAND. We are not simply because we have not got enough personnel to handle it.

Mr. ANTHONY. Has it been advertised for sale by the Emergency Fleet Corporation?

Maj. VAN NOSTRAND. I understand they intended to advertise it for sale at the time we asked them for it, but was withdrawn.

Mr. ANTHONY. What would the property bring if sold?

Maj. VAN NOSTRAND. I am not informed as to that. I understand it would cost a great deal more, according to the estimate of the engineers, to build these buildings now, or even build this one building than the original cost price, and certainly much more than they are asking for the whole plant.

Mr. ANTHONY. If the War Department purchased this plant from the Emergency Fleet Corporation do you know where the money would go?

Maj. VAN NOSTRAND. I do not, sir; I know there was an attempt made to secure this without the transfer of funds, but it was blocked; why, I can not say. I understand the Emergency Fleet Corporation maintained that they would lose more than they should be asked to bear in that. In other words, they could get this money from outside sources.

Mr. ANTHONY. Could the transfer be made by legislation?

Maj. VAN NOSTRAND. It can be, as I understand it, sir.

Mr. ANTHONY. Without the use of money?

Maj. VAN NOSTRAND. I believe so.

Mr. ANTHONY. We thank you for your statement, Maj. Van Nostrand.

SATURDAY, JANUARY 15, 1921.

MATERIAL FOR CHEVRONS.

Mr. Sisson. There was something said a day or two ago about the amount of money spent for chevrons and other things of that sort. How much money was expended for that purpose?

Mr. ANTHONY. That was in regard to a change in the type or design of the chevrons for the noncommissioned, and the question was asked how much money that had cost the Government.

Mr. Sisson. Was it in view of the fact that testimony was given before the committee to show that there was \$10,000,000 worth of chevron material on hand of the old type?

Gen. LORD. I understand, Mr. Chairman, that Col. Hickman desires to be heard on that subject.

STATEMENT OF LIEUT. COL. E. A. HICKMAN, GENERAL STAFF

Mr. Sisson. I would like somebody that knows more about it than we have in the record to give us some information about it.

Col. HICKMAN. Mr. Chairman, testimony was given last Saturday, January 8, 1921, by Col. Hannay, Quartermaster Corps, in reference to an administrative act of the War Department that apparently resulted in \$10,000,000 worth of chevrons for enlisted men being thrown into the discard or scrapped. In justice to the War Department, I desire to submit for the record, a copy of Circular No. 303, War Department, 1920, which announced the change in chevrons to the Army, including the Quartermaster General and his officers. It reads as follows:

WAR DEPARTMENT,
Washington, August 5, 1920.

CHEVRONS.

1. The following chevrons are prescribed for noncommissioned officers and privates, first class:

Master sergeant (first grade): Three chevrons and an arc of three bars, the upper bar of arc forming a tie with the lower chevron.

Technical sergeant (second grade): Three chevrons and an arc of two bars, the upper bar of arc forming a tie with the lower chevron.

First sergeant (second grade): Three chevrons, and an arc of two bars, the upper bar of arc forming a tie to the lower chevron. In the angle between lower chevron and upper bar, a lozenge.

Staff sergeant (third grade): Three chevrons and an arc of one bar, forming a tie to the lower chevron.

Sergeant (fourth grade): Three chevrons.

Corporal (fifth grade): Two chevrons.

Privates first class (sixth grade): One chevron.

2. These chevrons will be worn on the left sleeve, midway between the shoulder and the elbow, point up. This will be made of olive drab material, on a background of dark blue forming an edging around each chevron, arc, and lozenge.

3. So much of paragraphs 71 and 72, Special Regulations, No. 42, and of paragraph 16, Special Regulations, No. 41, War Department, 1917, as are in conflict with the foregoing are rescinded, but the old type chevrons now on hand will be issued and worn while serviceable.

(421.6, Adjutant General's Office.)

By order of the Secretary of War:

PEYTON C. MARCH,
Major General, Chief of Staff.

Official:

P. C. HARRIS,
The Adjutant General.

The necessity of making a change in the chevrons grew out of the Army reorganization act approved June 4, 1920, which did away with the old grades of enlisted men such as sergeant major, first sergeant, quartermaster sergeant, etc., and substituted the six designations outlined in paragraph 1 of the circular above quoted. These changes in the grades of enlisted men, it is understood, were worked into the law in the interest of simplicity and ease in administering to the enlisted men in the matter of rates of pay, etc. The change prescribed in paragraph 1 of Circular No. 303, above quoted, resulted in a diminution of types of chevrons from 23 to 6, which is an important fact in procurement, manufacture, and issue, as well as affording a much easier problem to remember and to determine the rank of Army noncommissioned officers.

The change in the background from olive drab to blue was made in the interest of visibility and appearance. The old system of olive-drab stripes on olive-drab background and all then sewed on olive-drab uniforms tended so completely to invisibility that it was almost impossible to determine the rank of a noncommissioned officer even though in his immediate presence and within speaking distance to him. It is essential that the military men when coming into close contact with each other speedily recognize each other insignia of rank. The visibility of the blue background is such that it can not be recognized at a much greater distance than say across an ordinary street or saluting distance and would not be a detriment to a soldier wearing such a chevron as far as visibility is concerned in battle. The necessity of some coloring for the background of chevrons has long been recognized by the Marine Corps.

Especial attention is called to the last three lines of Circular No. above quoted, which read "but the old type now on hand will be issued and worn while serviceable." In regard to the quotation above made I can assure this committee that it is the custom of the department, of many years standing, to insert a saving clause in rules and regulations in reference to utilization of equipment as far as practicable and possible to do so each time a change is made in uniform or equipment regulations; as a matter of fact Special Regulation No. 41, 1917, reads in part as follows:

PARAGRAPH 10. *Changes and modifications in article of uniform.*—When changes and modifications are made in articles of clothing or equipage, issues to the Regular Army and the National Guard of the kinds and patterns then on hand will be continued until the supply thereof is exhausted; and when any particular kind or size of article of clothing or equipage that has been modified has been exhausted, requisitions for that kind or size will be filled from the new pattern that may be adopted.

In addition to Circular 303, August 5, 1920, before quoted in the statement, the Quartermaster General was further advised in reference to this matter by first indorsement, Adjutant General's Office (Publication Division), under date of September 7, more than a month after the above circular was issued, in part as follows:

With reference to the issue of chevrons now on hand, your attention is invited to the last sentence of Circular No. 303, "chevrons now on hand will be issued and worn until exhausted." Where they can be converted as outlined in your second paragraph without expense, the method should be followed. All requisitions submitted for issue of chevrons of any grade should be filled from that stock modified as above.

Had the instruction of the department been carried out by the Quartermaster General, approximately 12,613,350 of the 12.44" of the old-type chevrons could have been issued and worn out before the new-type chevron should have been issued.

Since preparing the foregoing statement, two cases of action have been secured from the War Department files that have a direct bearing in this case. One is a cablegram to the commanding general, Coblenz, November 24, 1920, prepared in the Office of the Quartermaster General, and sent by The Adjutant General, which reads as follows:

WASHINGTON, D. C., November 24, 1920.

From: The Adjutant General.
To: Allen, Coblenz.
Number: W-481, November 24.

[Extract.]

QMG. Paragraph 1. Reference Y 386, paragraph 3, chevrons new type authorized by Circular 303, War Department, 1920, not available for some time. Chevron type should be issued and worn until exhausted. If sufficient quantity of chevrons not on hand submit requisition or cable quantity each grade old type and immediate shipment will be made.

HARRIS.

The other was action taken December 10, 1920, on request of recruiting office at Des Moines, Iowa, to have new chevrons supplied for the recruiting party at his station, which reads as follows:

415 LOCUST STREET
Des Moines, Iowa, December 10, 1920.

From: Recruiting officer.
To: The Adjutant General of the Army, Washington, D. C.
Subject: Chevrons.

1. In connection with as much of paragraph 3, War Department Circular No. 303, dated August 5, 1920, as relates to the suspension of issue and use of new type chevrons, until old type chevrons now on hand are exhausted, it is recommended that

limitation as to issue and use of the new chevrons be removed to the extent of requiring the new type chevron be immediately issued to the recruiting service.

2. There are many reasons why the new chevrons should be at once used by the recruiting service. Some of these are:

(a) A touch of attractiveness is added to the otherwise colorless uniform.

(b) In a civilian community where many ex-soldiers and many noncommissioned officers still wear the uniform, plus old type chevrons, the new chevrons will be a distinction between the real soldier and the ex-soldier.

H. R. PERRY,
Colonel of Infantry.

The indorsement on that letter reads as follows:

[First indorsement.]

A. G. 421.6 (Rtg.).

WJG-rk-59

WAR DEPARTMENT, ADJUTANT GENERAL'S OFFICE,
December 27, 1920.

To the ARMY RECRUITING OFFICER,
415 Locust Street, Des Moines, Iowa.

1. Disapproved. It is not contemplated at this time to make any change in the recruiting service. Districts which have received the new chevrons have done so through contact with the supply officer outlined in R. S. I. No. 51.

By order of The Adjutant General:

J. T. CONRAD, *Adjutant General.*

I am directed by the Chief of Staff, through Maj. Gen. Jervey, the Director of Operations, to inform the committee that steps have been taken to see that the issue of the new chevrons is stopped until the old supply is exhausted, as was intended and ordered by the War Department.

Mr. Sisson. Let me see if I understand. The substance of it is that you needed new chevrons because of the color of the uniform and then you reduced the number of types of chevrons from 22 to 6; that is to say, by using these bars you can put on one, two, or three bars for the same type of chevron?

Col. HICKMAN. There were so many chevrons that it was almost impossible to know just what they were. I have been in the service for 23 years and I do not know them all yet. They wanted to reduce the number.

Mr. Sisson. The order provided, as I understand from your statement, that no new chevrons should be used or purchased as long as there were old ones on hand?

Col. HICKMAN. That was the intent of the department; yes, sir.

Mr. Sisson. In that way you would use the old chevrons on hand first?

Col. HICKMAN. Practically all of them; yes; sir.

Mr. Sisson. And then eliminate the old chevrons as they were worn out by replacing them with the new ones?

Col. HICKMAN. Yes, sir.

Mr. Sisson. How long would \$10,000,000 worth of chevron material last the Army at its present size?

Col. HICKMAN. It was estimated that 75 per cent of the enlisted strength used chevrons. It seemed to me that was an exceptionally high figure, but I believe that is a matter of record.

Mr. ANTHONY. How many years would \$10,000,000 worth of material last the Army at its present strength?

Col. HICKMAN. I have not computed that.

Mr. ANTHONY. That amount of material would last a good many years, would it not?

Col. HICKMAN. I suppose, allowing for chevrons on the blouse and shirts, and wherever the chevron would be worn, that it would mean at least 12 pairs a year for each man.

Mr. CRAMTON. I thought as it was figured out the other day it was estimated that that amount would last from 5 to 10 years with an Army of 200,000 men.

Col. HICKMAN. Many of those chevrons have been saved to the service.

Mr. ANTHONY. In view of the fact that you had enough chevron material on hand to last 5 or 10 years, why did you not wait 5 or years before issuing the order for the change?

Col. HICKMAN. It is the custom when a new proposition is up, as in the case of the Army reorganization act, for the different branches of the Army to get to work on whatever concerns their own branch.

Mr. CRAMTON. The order was issued without regard to the material on hand?

Col. HICKMAN. There is a saving clause in the order.

Mr. CRAMTON. Why did not the officers who wanted to make changes in the uniform first take into consideration the old material on hand before issuing orders making the drastic changes they have made, even though they have a saving clause in the order?

Col. HICKMAN. I think everybody who got a copy of the reorganization bill went to work on his part of it, to do his part. Otherwise we would have been unprepared.

Mr. Sisson. I imagine you could give some time in advance, so that you may use the old chevrons before the new ones are ready. You can not make the change in a day.

Col. HICKMAN. That is true with all branches of the Army.

Mr. Sisson. But, as suggested by the chairman, it does seem that due regard ought to have been given to the saving clause that no substitutions must not be made for new chevrons as long as there were old ones on hand.

Mr. CRAMTON. I think in view of the statement which has been presented and the fact that we are about to close the hearings on the Army appropriation bill, it might be desirable that this statement should be given to the Quartermaster General and an opportunity given to him to answer it in the record with any statement he desires to make about it.

Mr. ANTHONY. I do not know whether he desires to make a statement or not, because I fail to see anything in the statement. Col. Hickman has presented in justification for issuing such an order in the face of the fact that the Army had such an immense amount of reserve chevron material on hand.

Col. HICKMAN. There are chevrons on hand for about 1,000,000 men.

Mr. ANTHONY. It is just as culpable, in my opinion, as if you had decided that you wanted new service rifles, because you wanted them with a fancy stock on it or wanted to make some minor change of that kind.

Mr. CRAMTON. Having gone through the war with a certain amount of chevron, in the piping days of peace, you have to throw away \$10,000,000 to satisfy an esthetic point of view.

Col. HICKMAN. That is just the point we are trying to make. We do not throw it away, and have not thrown it away.

Mr. CRAMTON. The practical point is this, that even if your order read a certain way, if this question had not come up in the course of these hearings, the stock of \$10,000,000 worth of material would have gone to the dump. But having been called up here it got to the attention of the authorities and the order issued was put into effect. Compliance with it was insisted upon, and the material is saved.

Col. HICKMAN. I think the record will show you that the action of the department has been consistent, so far as that matter is concerned.

Mr. CRAMTON. The hearing shows that notwithstanding the order and the action that was taken, it was brought to the attention of the War Department authorities that the order was not being lived up to and it would not have been lived up to if it had not been for that fact brought out in the hearing and a large amount of material would have been wasted.

Mr. Sisson. I think the blame would fall on the people who violated this order, and even though the Secretary of War does control, it is utterly impossible for him to look after the little details. But I do think somebody is to blame, as suggested by Mr. Cramton, for getting such a supply of chevrons before the necessity had occurred to have them. In other words, you ought to have bought this new material as the old material was exhausted.

Mr. CRAMTON. I really would not want to appear as criticizing them for the original purchase. That was in time of war.

Col. HICKMAN. It was left-over war stock.

Mr. CRAMTON. And would only supply an army of 1,000,000 men, and I would not criticize them for doing that at that time.

Mr. ANTHONY. The statement which has been made by Col. Hickman, it seems to me, is making Col. Hannay the "goat." Col. Hannay responded to a question I directed to him, and he said there was \$10,000,000 worth of this material on hand, and I asked him the question if that was not an extravagant thing to do, to change the type of chevrons when we had that large amount of material on hand. I developed the question. Instead of appearing to censure Col. Hannay, I wish we had more officers of that type who, when they come before committees of Congress would give us the facts that we should know.

Col. HICKMAN. I had in mind when I prepared my statement an expression that Mr. Cramton made when he said in effect "Wouldn't that make you wince?" when he felt that we had thrown away \$10,000,000 worth of material. The War Department never intended to do this.

Mr. ANTHONY. If a noncommissioned officer desires to be up to date, in accordance with that order, he has the option of equipping himself at his own expense with the latest type of chevron, does he not?

Col. HICKMAN. I do not think any prohibition has been sent out, but it is customary for the intent of an order to be reasonably interpreted.

Mr. ANTHONY. So you are going to put a number of noncommissioned officers to the necessity, if they want to equip themselves with the type of chevron which the General Staff desires, of going to personal expense in obtaining this latest type of chevron?

Col. HICKMAN. It was not contemplated that the noncommissioned officers would do that.

Mr. ANTHONY. But they will do it?

Col. HICKMAN. That might be done, but it is against the policy of the War Department for enlisted men to buy articles of uniform that are furnished by the Government.

Mr. ANTHONY. If it does not come out of the Government's pocket it will come out of the pockets of the enlisted men if they want their chevrons.

SATURDAY, JANUARY 15, 1921.

TRANSPORTATION OF WOUNDED AND OTHERWISE DISABLED SOLDIERS, SAILORS, OR MARINES WHEN TRAVELING ON FURLOUGH.

Mr. ANTHONY. Gen. Lord, I wish you would tell us about the item on page 121, for transportation of wounded and otherwise disabled soldiers, sailors, and marines traveling on furlough, which it seems it is desired to omit from the bill.

Gen. LORD. This was a provision to provide for the transportation of wounded and otherwise disabled soldiers, sailors, and marines under treatment in any Army, Navy, or other hospital, at 1 cent per mile, when they go on furlough. The difference between the 1 cent and the railroad rate is paid out of this appropriation, and there was \$250,000 appropriated for the fiscal year 1921 for this purpose. This, as I recall, was introduced in the Senate committee, or on the floor of the Senate. It was not a War Department provision. It is permanent legislation, and so we have submitted an estimate as found on page 122 for the next succeeding year, 1922, amounting to \$100,000. When that estimate was prepared in September, we had no idea whatever as to what the expense would be, and no method of ascertaining it. I am able, under date of January 12, to show a total expenditure out of that item of \$17,014.62. I think that it can be considered as rather a fair rate of expenditure.

Mr. SLEMP. For the half year?

Gen. LORD. For the half year, because I have the payments made in September, October, and December. The payment in September would show the accumulation for the preceding months, but we really do not know to-day how much will be involved. If there is a delay in payment because of an insufficient appropriation, it will be a comparatively small amount that the various railroads will be obliged to wait for. I think that \$35,000 will be sufficient for the next fiscal year.

Mr. ANTHONY. This is to make good the difference between 1 cent a mile rate and the railroad rate?

Gen. LORD. Yes, sir.

Mr. ANTHONY. How much did you say had to be appropriated for this item?

Gen. LORD. On the basis of \$17,000 expended for the first six months, \$35,000 will be approximately the expenditure for the year.

In regard to the item at the top of page 123, that is permanent legislation and does not need to be reenacted. The paragraph at the bottom of page 122 was legislation for a year.

ticular object. The paragraph at the top of page 124 is permanent legislation, and that at the bottom of page 124 was emergency legislation in regard to emergency commissioned personnel.

MEDAL OF HONOR FOR VERDUN.

Mr. ANTHONY. The paragraph at the bottom of page 125 in regard to the medal of honor for Verdun was temporary legislation?

Gen. LORD. Yes, sir. I would like to say in closing, Mr. Chairman, that if an attempt is made to reduce the estimates submitted by the War Department below the amount carried in the current appropriation act, which ostensibly was for an Army of 175,000 men, the committee will face the fact that the money appropriated for the current fiscal year was not sufficient for an Army of 175,000 men. We have already submitted to the subcommittee on deficiencies of the Committee on Appropriations an estimate for approximately \$69,000,000, and I am satisfied that will not be sufficient to carry us through the year.

Mr. SLEMP. Of which how much was due to the Army being above 175,000 men?

Gen. LORD. \$40,000,000 of that \$69,000,000 is for "Pay of the Army," of which \$25,000,000 is the additional amount necessary to pay an Army of 175,000 for the year.

Mr. Sisson. In other words, the expense of getting those men into the service and equipping them with uniforms and everything of that sort in addition to the pay of the men might possibly have absorbed the difference.

Gen. LORD. The additional deficiencies that have been submitted do not affect pay and equipment but are confined to subsistence and transportation. I am satisfied that if given the deficiency approved by the Secretary of War, the Quartermaster General will necessarily have to ask later for additional funds, no matter how economical his administration of the appropriation may be.

Mr. ANTHONY. Your statement is really in effect that Congress failed to appropriate by \$25,000,000 in the current appropriation bill enough money to pay for an Army of 175,000 men?

Gen. LORD. That is it exactly.

Mr. SLEMP. And 17,000 officers?

Gen. LORD. The average number was 14,260.

THURSDAY, JANUARY 13, 1921.

UNITED STATES MILITARY ACADEMY—PERMANENT ESTABLISHMENT.

STATEMENTS OF BRIG. GEN. DOUGLAS MacARTHUR, SUPERINTENDENT, AND COL. E. J. TIMBERLAKE, QUARTERMASTER AND DISBURSING OFFICER.

NUMBER OF CADETS—VACANCIES.

Mr. ANTHONY. General, how many cadets have you at West Point?

Gen. MACARTHUR. There are now 1,006.

Mr. ANTHONY. What is the full number of cadets authorized?

Gen. MACARTHUR. The full authorization provides for 1,334.

Mr. ANTHONY. Is this the number that you have there now? What is the average number of cadets for this time of year?

Gen. MACARTHUR. No, sir; this is the greatest number we ever had. I think it is the greatest percentage of authorized strength we have ever had. The fact that the corps of cadets has never been filled to its authorized strength is probably due to the more or less cumbersome mechanics of appointment. The appointments are made in a way with which you are fully familiar. There are a great many vacancies which are not filled in the various districts here either of inability to find a man who desires the appointment or one capable of coming up to the standards required for the place. Many men are appointed who do not come up to the requirements, and the time that elapses between their rejection and the time of their report at the academy is so short that the Congressman has not the opportunity to find a suitable replacement.

Mr. ANTHONY. Is it not a fact that you have over 300 vacancies there now?

Gen. MACARTHUR. We have.

Mr. ANTHONY. How many of those vacancies are due to the failure of Members of Congress and Senators to appoint, and how many are due to the casualties that occur at the academy?

Gen. MACARTHUR. The number we had when the new class reported in June was approximately 1,057. The exact number we have now is 1,006, so the difference between those numbers represents the casualties. The difference between the full number who entered and the authorized strength of the corps would be the difference between 1,334 and 1,057. All vacancies are not due to the failure to appoint on the part of Congress, although the majority are. Some of the vacancies which exist are from the Army at large.

Mr. ANTHONY. The Army at large gets 50 now?

Col. TIMBERLAKE. There are 180 divided between the Regular Army and the National Guard.

Mr. ANTHONY. Are those all appointed by the President?

Gen. MACARTHUR. They are. The men from the National Guard are appointed upon the recommendations of the governors of the States.

Mr. ANTHONY. To what cause is ascribed the failure of many Congressmen and Senators to make their appointments? Is the trouble

confined to any one part of the country or is it scattered all over the country?

Gen. MACARTHUR. It is scattered, and I think it is probably due to to the burden of large affairs that lies upon every Congressman and the fact that these appointments are a very minor part of their duty and obligations.

Mr. ANTHONY. I can not understand that condition of affairs, because I have a dozen men for every appointment that comes to me.

Gen. MACARTHUR. They are very popular in your district, but there are districts where the Congressman informs us he has not been able to get a boy to accept the appointment for years. Col. Timberlake says that former Congressman Broussard said he had not been able to get a man to accept an appointment for 20 years.

Mr. DENT. That is while Mr. Broussard was in Congress?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. On the other hand, during the last six months I have named two cadets to Annapolis, both of whom qualified and both of whom resigned after being there three or four months, on their own volition and because of the conditions there. But I have never appointed a cadet who has left West Point of his own volition.

Gen. MACARTHUR. Very few have.

Mr. DENT. It is a fact also, is it not, that a good many of them fail to pass the initial examination after they are appointed?

Gen. MACARTHUR. Yes, sir. Of course, we get a great majority of our men now by means of certificates. We accept the same certification that is accepted by the larger colleges and universities. That is, a man who goes through a high school and graduates and is in good standing and who has taken the required course of study would have his certificate accepted, just as does a man who goes to a university. I think we get about three-quarters of the men in that way, and those men do not have to take the entrance examination. Some of those certificates, of course, are not entirely reliable, and men enter the academy with correct certification who have not the proper foundation. It is the present effort on the part of the authorities at the academy to salvage everything possible in the way of personnel.

Mr. DENT. My recollection is that the average number of cadets at the Academy in the last few years has been around 700; that is correct?

Gen. MACARTHUR. I am not familiar with the strength during the war, but when I assumed command a year and a half ago I think we had about 660. We have now increased the corps up to 1,057, and I am very anxious indeed to run the plant to capacity.

Mr. ANTHONY. What is the full capacity of the plant at this time?

Gen. MACARTHUR. One thousand three hundred and thirty-four, as it stands to-day.

Mr. ANTHONY. That is the strength authorized by law?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. Is that the extreme physical capacity of the plant to house and care for cadets?

Gen. MACARTHUR. They are pretty tightly housed at that figure. I would not say that on an emergency we could not expand to the extent of several hundred more.

Mr. ANTHONY. Under the reorganization act we have authorized a total of 17,000 commissioned officers, and it has occurred to me

that in order to maintain the proportionate number of officers coming into the Army from the list of graduates of the Military Academy that we might have to increase the capacity at West Point at some time, and I wondered if that could be done to any extent with the present facilities you have there?

Gen. MACARTHUR. It is my belief, based upon the very facts I have stated, that the Academy should be doubled in size. That its authorization should be something over 2,600 cadets. With the present strength of the corps we can not supply more than 30 per cent of the officers of the peace time Army.

Mr. ANTHONY. With the corps at West Point at 1,334, how many men will you graduate every year?

AVERAGE NUMBER OF GRADUATES.

Gen. MACARTHUR. You would graduate between 200 and 250—the average.

Mr. ANTHONY. At the end of a four-years' course?

Gen. MACARTHUR. Yes, sir. You can figure as a rule of thumb that you will graduate something less than 20 per cent of the total strength each year.

Mr. ANTHONY. Each year?

Gen. MACARTHUR. Yes; that would be an average. You can not count on more than 250. This is to feed a present authorized commissioned strength of the Regular Army of about 17,000.

Mr. ANTHONY. Have you ever considered the advisability of shortening the course for certain classes of students, giving the men who had had one, two, or three years in college credits for the study which they had pursued and relieving them from a duplication of the work at the Military Academy?

Gen. MACARTHUR. Yes, sir; the general question involved has been thrashed out for many years. It resulted in a three years' course being established at the academy after the war. The Military Committee, however, after very exhaustive hearings last year, recommended the four years' course.

Mr. ANTHONY. I know that some of the members of the Commission on Military Affairs seriously objected to shortening the regular course of four years for men who would go to the academy with the equivalent of a high-school education. But take a man in one of the best colleges or universities who has had two or three years of the work in such an institution. You say you have considered the idea of giving such men credits?

Gen. MACARTHUR. No, sir.

Mr. ANTHONY. And then confining their two or three years' instruction at the Military Academy largely to military instruction and completing their course in that time?

Gen. MACARTHUR. I do not think that definite suggestion has been formally considered. At first blush it would be appealing. I think you would find great difficulty in mechanically putting it into effect because of the nonhomogeneity of the men involved. You would find, if we have, say, 50 men in the class that come from universities—that those men have come from 50 different universities and probably taken 50 different courses. You would probably find you could not have group instruction that would embrace any appreciable

percentage of those 50 men. You would probably have to have every one of them taking a special tutored course. It would be a rare instance where you could get a man who could break into one of the upper classes to advantage. He is generally lacking not only in the foundation of military discipline, but in some of the studies of the first-year course.

Mr. ANTHONY. So the theory of the West Point education is to get a boy at a comparatively young age and completely mold him?

Gen. MACARTHUR. Yes, sir; a man at the ordinary university age; and the theory is, Mr. Chairman, that the school is intended to inculcate only general principles; that is, the principles of the military service that should be possessed in common by all. We train for no special technical branch at West Point. We give a man a general education in an educational way and we superimpose on that the military characteristics.

Mr. ANTHONY. He gets an all-around military and general education, and is supposed to be fitted to go into any branch of the service?

Gen. MACARTHUR. Yes, sir.

AVERAGE NUMBER OF CADETS ENTERING EACH YEAR, ETC.

Mr. ANTHONY. What is the average number of cadets who enter each year?

Gen. MACARTHUR. The classes that have entered in the last two years have been exceptionally large. The entering class two years ago was about 480 and last year's class, the largest in the history of the institution was about 630. We have now for the next year about 325 vacancies and we probably will have casualties that will amount to from 75 to 100 men before next June, so we would have a possibility for next year's entering class of something over 400 men.

Mr. ANTHONY. In what class do most of them drop out each year?

Gen. MACARTHUR. The fourth class; that is, the first year class.

Mr. ANTHONY. What is the percentage of men who drop out?

Gen. MACARTHUR. The percentage this year will probably be about 15 in January. It will probably be 2 or 3 per cent in June. But we have established a system of salvage in the reconstruction that has been going on in West Point the last year and a half which will undoubtedly, beginning next year, cut down the percentage of men that are discharged at least 50 per cent. This system consists of extra instruction after the ordinary curriculum of the day.

Mr. ANTHONY. If you find a man who is somewhat weak in one branch, instead of arbitrarily dropping him, you will give him special instruction?

Gen. MACARTHUR. Yes, sir. We find that there are a great many men who enter who are fine officer material, but who do not start from "scratch." Their previous training has been lacking to some extent and the course is so rigid that when they are thrown into it they are overwhelmed in the beginning.

Mr. ANTHONY. You recognize the fact that good officer material does not come entirely through book learning?

Gen. MACARTHUR. No, sir; absolutely not. The basic principle of the Military Academy, the principle we put into the men above all else, is character. We educate them, but the stamp of West Point is the character stamp.

Mr. ANTHONY. Of the 50 men who will drop out of your four class during the present year how many drop out from failure in studies and how many are dropped from infraction of the regulations?

Gen. MACARTHUR. There has been no man dismissed from the Military Academy in the year and a half that I have been superintendent. Some of the men are dropped for physical reasons.

The discipline of the Corps of Cadets has been excellent. We are trying to establish a type of discipline that produces a sense of individual responsibility and the self-control and self-respect that goes with it. We are getting away from some of the old and harsh methods, and the result has been that the cadets themselves are more responsible now than they have been in the past.

Mr. ANTHONY. How many classes were graduated at West Point during the war period who did not finish the required four years' course?

Gen. MACARTHUR. All those who graduated failed to finish the four years' course, I believe.

Mr. ANTHONY. From what year?

Col. TIMBERLAKE. The first class was graduated in April, 1917, and then in August, 1917, they graduated another class.

Mr. ANTHONY. The first class that graduated in 1917 had three years' instruction?

Col. TIMBERLAKE. Three years and nine months, because they would have graduated ordinarily in June, anyway.

Mr. ANTHONY. And in the same year you graduated another class?

Col. TIMBERLAKE. In the same year we graduated another class which was the 1918 class.

Mr. ANTHONY. They had had three years and nine months' instruction?

Col. TIMBERLAKE. Yes. Then on November 1, 1918, they graduated two classes. One of those classes had had one year and four or five months of instruction and the other had had two years and four or five months of instruction.

Mr. ANTHONY. What has become of the officers who had one year and four or five months of instruction?

Col. TIMBERLAKE. The armistice was signed on the 11th of November, 1918, and they came back on the 1st of December and took special courses until the next June, and since that time those who had two years and five months have been sent to these special schools of the different branches of the Army, and they took a course there. The engineers took a two years' course.

Mr. ANTHONY. When these men who had had one year and four months of instruction at West Point were graduated they were given rank in the Army on the date of their graduation?

Col. TIMBERLAKE. Yes, sir.

Mr. ANTHONY. They have maintained that rank since?

Col. TIMBERLAKE. Yes, sir.

Mr. ANTHONY. And their relative position on the promotion list?

Col. TIMBERLAKE. Yes, sir.

PERSONNEL.

Mr. ANTHONY. Will you put in the record some statistics with regard to the number of cadets, showing how they are appointed?

in the different classes, and also some statistics that will show the number of officers assigned to duty at the academy now, and the number of enlisted men stationed there, and the number of civilian employees and their classification?

Gen. MACARTHUR. Yes, sir.

(The statement referred to is as follows:)

CADETS BY CLASSES.

Second class.....	122
Third class.....	304
Fourth class.....	580

Total.....	1,006
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Officers.....	172
Civilian instructors.....	7

List of employees at the United States Military Academy, Jan. 1, 1921.

PERMANENT ESTABLISHMENT (STATUTORY).

Clerks:		Firemen.....	8
Quartermaster office.....	9	Oilers.....	2
Adjutant's office.....	12	Draftsman, department civil and	
Treasurer's office.....	1	military engineering.....	1
Commandant of cadets.....	1	Skilled mechanics, etc., department	
Department modern languages..	1	of chemistry.....	1
Department of law.....	1	Skilled mechanic, department of	
Department of English and his-		philosophy.....	1
tory.....	1	Skilled mechanic, department of	
Department of mathematics.....	1	drawing.....	1
Department of hygiene.....	1	Electrician.....	1
Department of philosophy.....	1	Chief plumber.....	1
Instructors:		Assistant plumber.....	1
Spanish.....	2	Plumber's helper.....	1
French.....	2	Scavenger.....	1
Fencing.....	2	Organist.....	1
Gymnastics.....	3	Printer.....	1
Librarian.....	1	Assistant printer.....	1
Assistant librarian.....	1	Master mechanic.....	1
Janitors:		Photographer, department of drawing.	1
Gymnasium.....	1	Overseer waterworks.....	1
Bachelor building.....	1	Bookbinder.....	1
Academic buildings.....	1	Booksewers.....	2
Memorial Hall.....	2	Pressman.....	1
Engineering:		Charwoman.....	1
Power plant, chief.....	1	Messenger, superintendent's office....	1
Power plant, assistant.....	3	Teacher of music.....	1
Assistant heating and ventilating.	1		
Refrigerating apparatus.....	1	Total.....	85
Superintendent gas works.....	1		
Superintendent post cemetery.....	1		

QUARTERMASTER CORPS AND FINANCE DEPARTMENT.

Clerk, finance.....	1	Plumbers.....	2
Clerks, stock maintenance office....	7	Tinners.....	2
Machinist.....	1	Carpenters.....	6
Wheelwright.....	1	Clerk, construction service.....	1
Caretaker.....	1	Laborers, construction service.....	10
Superintendent of construction.....	1	Stevedores.....	10
Road engineer.....	1		
Marine gas engineer.....	1	Total.....	49
Shoe shop foreman.....	1		
Shoe repairmen.....	3		

MONTHLY AND PER DIEM EMPLOYEES, MILITARY ACADEMY.

Superintendent of construction.....	3	Machinist.....	
Assistant civil engineer.....	1	School principal.....	
Foremen.....	5	School teachers.....	
Foreman, barrack policemen.....	1	Laborers.....	
Barrack policemen.....	20	Masons.....	
Carpenters.....	23	Overseer.....	
Plumbers.....	6	Woodsmen.....	
Electricians.....	2	Woods foreman.....	
Engineers.....	1	Waterboy.....	
Tinners.....	4	Riggers.....	
Steamfitters.....	5		
Steamfitter helpers..	8	Total.....	

Total Permanent Establishment (Statutory).....

Total monthly and per diem employees.....

Total Military Academy.....

PAY OF PROFESSORS—ESTABLISHMENT OF DEPARTMENT OF ECONOMICS
IN GOVERNMENT.

Mr. ANTHONY. The first item is for pay of eight professors and amount you are asking for is \$31,000.

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. You also have some new language in this provision.

Provided, That the Department of English and History shall hereafter be Department of English, and that a Department of "Economics in Government and Political History," is hereby created.

You are asking for an increase of one professor?

Gen. MACARTHUR. Yes, sir; we have added the Department of Economics in Government and Political History to the course at West Point. A complete revision of the curriculum was made by the Academic Board and approved by the War Department after study of five months, and we have expanded the course of study to include a Department of Economics in Government and Political History. We need a professor for that department.

Mr. ANTHONY. Does the pay of the individual professors remain the same?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. And you have provided for the same pay for an additional professor that you asked for the other?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. He will be a civilian?

Gen. MACARTHUR. He could be appointed either from the Army or from the Army. He is appointed like any other officer; when he becomes on his appointment a professor of the Military Academy, with the rank and pay of a lieutenant colonel. He is nominated by the Executive and confirmed by the Senate.

Mr. ANTHONY. If you appoint an Army officer to that position, does he maintain his status on the Army list?

Gen. MACARTHUR. No, sir.

Mr. ANTHONY. He loses that and secures the permanent status of a professor at the Military Academy, carrying with it the pay and rank of lieutenant colonel?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. When you take an Army officer to fill a chair of this kind, supposing he is a lieutenant colonel already, will his lieutenant colonel's pay be based upon his length of service, or would he simply receive the straight pay of a lieutenant colonel?

Gen. MACARTHUR. No, sir, he would have to vacate his lieutenant colonel's status on that list.

Mr. ANTHONY. And accept the initial pay of a lieutenant colonel?

Gen. MACARTHUR. But he would be entitled to his continuous-service pay; he would be entitled to everything that accrued by his past service.

Mr. ANTHONY. But if a civilian was appointed to this position he would simply receive the base pay of a lieutenant colonel?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. Do you regard the creation of this new chair as a necessity?

Gen. MACARTHUR. Absolutely.

Mr. ANTHONY. Is it in view of the increased number of cadets or is it because you want to enlarge the curriculum?

Gen. MACARTHUR. It is because we want to enlarge and modernize the curriculum.

PAY OF THE CHAPLAIN.

Mr. ANTHONY. The next item is for pay of one chaplain, and you are asking \$3,000, which is an increase of \$600.

Gen. MACARTHUR. The present pay is entirely out of proportion for a man of the ability and influence required.

Mr. ANTHONY. Who is the present chaplain?

Gen. MACARTHUR. Chaplain Wheat. We have had a series of very excellent chaplains, but we have consistently lost them. The last one we had was Chaplain Silver. He resigned to accept a consistory in New York at more than twice the salary we offered. The man whom he had succeeded did the same thing.

Mr. ANTHONY. Is the present chaplain a civilian?

Gen. MACARTHUR. Yes, sir; a civilian. He is a very excellent man. He is appointed for four years and he has to be reappointed at the end of every four years. This provision would put him on the basis of a major.

Mr. ANTHONY. The position of chaplain at West Point carries no military rank or allowances with it?

Gen. MACARTHUR. No, sir. He, of course, receives quarters, but he receives nothing in the way of emoluments beyond his rank.

Mr. ANTHONY. And no permanency beyond four years?

Gen. MACARTHUR. No, sir.

PAY OF MASTER OF THE SWORD.

Mr. ANTHONY. Your next item is—

For pay of Master of the Sword, \$3,500, and the present incumbent shall have the relative rank and be entitled to the pay, allowances, and emoluments including retirement, of a lieutenant colonel.

Gen. MACARTHUR. That is exactly the same as last year, with the exception of the words "including retirement," which are added, omitting the words "during his incumbency." The present incumbent, I have no doubt you know very well, Col. Koehler. He

has been at the Military Academy nearly 40 years and he has reached the retiring age, and this is to insure him that privilege. I think he has it now, according to law, but some question has been raised about it and this provision was inserted in order to protect him.

Mr. ANTHONY. Why would he get the right to retire, in your opinion?

Gen. MACARTHUR. He would get it from the wording of the law last year. It says "shall be entitled to pay, allowances, and emoluments," and there has been at least one legal opinion to the effect that the allowances include the provisions for retirement.

Mr. ANTHONY. But the language last year was further made definite by the use of the words "during his incumbency."

Gen. MACARTHUR. Yes, sir; and that would probably be the reason that the decision would be doubtful.

Mr. ANTHONY. This item provides no increase in his pay?

Gen. MACARTHUR. No, sir. I do not even know that Col. Koeltz contemplates retiring, but he is certainly entitled to it by all the rules of equity.

PAY OF CADETS.

Mr. ANTHONY. Your next item is for pay of cadets. There was an appropriation for this item for 1921 of \$850,000, and you are asking for the fiscal year 1922, \$1,678,700.

Gen. MACARTHUR. Those figures should be revised down. The estimate was made upon the basis of 1,665 cadets. I had inserted a proviso in this bill providing for an increase in the strength of the Corps of Cadets. This proviso has been stricken out.

Mr. ANTHONY. You now have how many?

Gen. MACARTHUR. We now have 1,006. This estimate should be based upon about 1,200 cadets. We probably will not have more than that. The revision would change these figures to a total of \$1,316,000 instead of \$1,678,700.

Mr. ANTHONY. That is computed on the pay now allowed by law?

Gen. MACARTHUR. Yes, sir. I would like to complete my previous statement, that these estimates were made upon the basis of a proviso that was cut out for the increase of the Corps of Cadets, which enables this revision to be made downward. The revision is not a downward revision in the case of the pay of any individual cadet, but on the total number of cadets.

Mr. ANTHONY. When was the pay of cadets last increased?

Gen. MACARTHUR. Two years ago.

Mr. ANTHONY. From what figure?

Gen. MACARTHUR. From \$600 to \$780.

CREDIT TO CADETS TO COVER INITIAL COST OF CLOTHING AND EQUIPMENT.

Mr. ANTHONY. What is the meaning of the new proviso on page 10: "*Provided further, That hereafter each new cadet shall, upon admission to the United States Military Academy, be credited with the sum of \$250 to cover the cost of his initial clothing and equipment necessary for his service.*"

Gen. MACARTHUR. The present regulation provides that a cadet upon entry shall deposit \$300 to cover this initial allowance. We find that a great many poor boys do not bring the money. It

accept them and we advance or loan them the money from the treasurer's funds. In other words, the Government loans them that money. Those men therefore start in the academy that much in debt. Some of them are in debt until their last year at the academy. Those men who are discharged in the interval frequently leave owing the Government money. We have had to come before Congress the last two years for this same provision of \$250 for every cadet in the institution.

Mr. ANTHONY. When you advance the initial amount of \$300, you are doing that without any direct authority of law?

Gen. MACARTHUR. I think there is authority of law. I think we have a fund for that purpose.

Col. TIMBERLAKE. The treasurer has a working fund to enable him to run the cadet store which makes the uniforms and supplies all the equipment the cadet gets.

Mr. ANTHONY. So you advance him that money with the idea of deducting from his pay?

Col. TIMBERLAKE. Yes, sir. The day the cadet arrives he is sent to the store to get so much equipment which he needs, and which amounts to \$325 or \$350, and the committee which considered the bill last year thought that it was up to Congress to pay the expenses of the cadets while they are there, and they thought it best to put in a provision every year for \$250 to pay for this initial equipment. They authorized that last year, without making any appropriation.

Mr. ANTHONY. He is simply credited with \$250; it is not additional pay?

Col. TIMBERLAKE. No, sir; it is not additional pay.

Mr. ANTHONY. You are asking for this provision to cover the advances you make in some instances, but you will make it in all instances hereafter?

Gen. MACARTHUR. If this provision is enacted into law.

Col. TIMBERLAKE. Last year it only covered the cadets who were at the academy March 30, 1920.

Mr. ANTHONY. It does take new funds to cover this authority?

Col. TIMBERLAKE. It is in addition to what we have.

Gen. MACARTHUR. This estimate would include that.

Mr. ANTHONY. Last year you were given \$850,000 for the pay of cadets. Did that cover the pay of the cadets?

Col. TIMBERLAKE. It covered the pay of the cadets. It did not cover this item, which is included in the estimate for pay for next year.

Mr. ANTHONY. You have the authority to credit each cadet with \$250 last year?

Col. TIMBERLAKE. Yes, sir; it was authorized but no appropriation was made to cover it.

Mr. ANTHONY. What was the deficiency created in the item for pay of cadets?

Col. TIMBERLAKE. That is to cover \$250 per cadet, and the amount was \$209,284.09. Yesterday I reduced that by \$85,000.

Mr. ANTHONY. How did you reduce it?

Col. TIMBERLAKE. Because I found I was going to have the balance in the \$850,000 of \$85,000, due to a number of cadets being discharged.

Mr. ANTHONY. There is no increase of pay provided for now in this bill?

Gen. MACARTHUR. No, sir. We give these cadets on entrance \$25 for equipment.

PAY OF OFFICERS ON DETACHED SERVICE AT THE ACADEMY

Mr. ANTHONY. Your next series of items are for extra pay of officers of the Army on detached service at the Military Academy. It is the custom to pay each officer on duty at the academy an extra amount, is it, or do certain officers get that extra pay?

Gen. MACARTHUR. Yes, sir; certain ones, and we have cut the number down very markedly.

Mr. ANTHONY. You are asking for the pay of one commandant of cadets (colonel) in addition to his regular pay, \$1,000.

Gen. MACARTHUR. His regular rank is that of major, and he has the local rank of colonel. The item provides for him the pay of a colonel.

Mr. ANTHONY. Who is your present commandant?

Gen. MACARTHUR. Gen. Danford.

Mr. ANTHONY. He has the rank of major in the Regular Army?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. You are asking for the pay of one professor of ordnance and science of gunnery (lieutenant colonel) in addition to his pay as major, \$500.

Gen. MACARTHUR. There are certain chairs on the faculty which are not permanent. Officers are detailed from the Army to fill them for 4-year periods. That is because the subjects that they supervise are continually changing, although their fundamental principles are immutable. We wish to bring to them the fresh thought of the Army at large. These men, temporarily members of the faculty, have always been given the same rating as the permanent professors, and when they have a lower rank than that of a permanent professor, they are given added rank and pay to put them upon a commensurate basis.

Mr. ANTHONY. Who is your present professor of ordnance and science of gunnery?

Gen. MACARTHUR. Maj. Mettler.

Mr. ANTHONY. You are asking for the pay of one professor of ordnance (lieutenant colonel) in addition to his pay as major, \$500.

Gen. MACARTHUR. That is exactly the same as the previous case. Maj. Strong is the officer in question. The same reasons apply to the next item for pay of one professor of practical military engineering.

Mr. ANTHONY. I notice you want to omit a number of items: pay of assistant professors, battalion commanders, senior instructors, 16 instructors of cavalry, artillery, and infantry; one adjutant and one associate professor mathematics, in addition to their pay in their regular ranks. What is the idea of omitting those positions?

Gen. MACARTHUR. Those officers have heretofore gotten additional pay. The reorganization of the Army has raised the rank of these officers, and their pay has also been increased. I therefore do not see why we should have the extra rating that is necessary in the case of these other officers we have already been talking about.

Mr. ANTHONY. The argument for giving the extra pay does not apply in these cases in which these men have attained commensurate rank for the places they occupy?

Gen. MACARTHUR. Yes, sir; they have had increased pay and increased rank.

Mr. ANTHONY. You make a saving there of practically \$11,000, do you not?

Gen. MACARTHUR. We had an appropriation last year for this purpose of \$32,500, and the estimate for 1922 is \$21,300, so that the difference is \$11,200, which is the amount of reduction.

Mr. ANTHONY. You are asking for the pay of one quartermaster and commissary of cadets and treasurer, in addition to his regular pay, \$600.

Gen. MACARTHUR. That is an old item and I thought that could be left in the bill. He does much work outside of the regular line of an officer's duty, and I think he needs that to carry him along.

Mr. ANTHONY. It has been carried in the bill for quite a while?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. You are asking for the pay of one line officer on duty in the quartermaster's department at the academy, in addition to his regular pay, \$400. What is the rank of that officer?

Gen. MACARTHUR. His rank is that of major.

Mr. ANTHONY. Why do you give him \$400 additional pay, while you give most of the others \$500?

Gen. MACARTHUR. That has always been the case, and I have not attempted to rearrange or readjust the items of long standing.

Mr. ANTHONY. Why have you omitted the item for the pay of one associate professor of mathematics in addition to his regular pay as captain, with the amount of \$600?

Gen. MACARTHUR. He is a major now. That was meant to give him the rating and the pay of the higher grade because it was believed his duties entitled him to that rating. He has it now, so I see no reason why the \$600 should be continued.

Mr. ANTHONY. You are asking for the pay of one constructing quartermaster, in addition to his regular pay, \$1,000.

Gen. MACARTHUR. The same line of argument applies to that as to these other cases—the same argument as applies in the case of the quartermaster and commissary of cadets, and treasurer.

Mr. ANTHONY. Col. Timberlake is your constructing quartermaster?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. That item has been carried for a number of years?

Gen. MACARTHUR. For about 20 years.

FOR INCREASED PAY TO EIGHT PROFESSORS.

Mr. ANTHONY. You are asking for increased pay of eight professors, \$4,800.

Gen. MACARTHUR. That is because of the provisions of the pay bill.

Mr. ANTHONY. Because of the temporary increase of pay allowed by Congress?

Gen. MACARTHUR. Yes, sir. That is carried as a separate item because that increase provided by Congress only goes until the end of the next fiscal year.

Mr. ANTHONY. In accordance with that increase each lieutenant colonel would be entitled to receive \$600 a year increase.

Gen. MACARTHUR. That is what the law provides.

Mr. ANTHONY. If they were on duty in the regular service they would get that increase?

Gen. MACARTHUR. Just exactly the same.

Mr. ANTHONY. Being on duty at the Military Academy you have to make this specific provision.

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. You are asking for additional pay of professors and officers (and officers receiving pay of increased rank) for length of service, \$12,000.

Gen. MACARTHUR. That is the "fogey" pay, sir.

Mr. ANTHONY. That is figured strictly according to law.

Gen. MACARTHUR. Yes, sir.

Mr. Sisson. That is the regular longevity pay?

Gen. MACARTHUR. Yes, sir.

Mr. Sisson. How many professors are cared for under this provision?

Gen. MACARTHUR. I think there are eight, sir.

Mr. Sisson. Out of the \$12,000?

Gen. MACARTHUR. Yes, sir.

Mr. Sisson. This is in addition to their regular pay; this is the longevity pay?

Gen. MACARTHUR. Yes, sir.

Mr. Sisson. Do you mean to say they get longevity pay at that rate, so that only eight of them are taken care out of \$12,000?

Gen. MACARTHUR. I think so.

Mr. Sisson. Will you put in the record the entire number affected?

Gen. MACARTHUR. Yes, sir. The exact number is 9: 7 professors, 1 teacher of the sword, and 1 teacher of music.

Mr. ANTHONY. What is your idea about the language in parentheses?

Gen. MACARTHUR. The intent of it is apparently merely to give longevity pay to officers who are entitled to it.

Mr. Sisson. Under the reorganization bill, General, was there a change in the conditions under which officers would receive longevity pay?

Gen. MACARTHUR. No, sir; there was not. This item, so far as we can see, would be in the bill under any conditions, and should be a continuing item. I am not familiar with the reason for its insertion which was not done in my office. It was submitted by the Military Academy as follows, "For additional pay of professors and officers for length of service."

Mr. ANTHONY. With the parentheses stricken out.

Gen. MACARTHUR. With the parentheses stricken out; yes, sir.

Mr. ANTHONY. It might mean that officers of increased rank over the present rank--

Col. TIMBERLAKE (interposing). The present law does not allow increased rank.

Mr. ANTHONY. This would change existing law, if we carried the bill in this way.

Col. TIMBERLAKE. We do not want that item there in that way. We do not want the part in parentheses.

Mr. ANTHONY. Is not this only for such officers as are on duty there at an increased rank, or your professors who may have length of service due them because of the previous service you were speaking of? What did the item carry last year?

Col. TIMBERLAKE. The same thing.

Mr. ANTHONY. How much did you use during the current year for this purpose?

Col. TIMBERLAKE. I could not tell you that because it is carried in one fund.

PAY FOR THE MILITARY ACADEMY BAND.

Mr. ANTHONY. Under the heading of pay for the Military Academy band you are asking for one band leader (warrant officer), at \$110 per month, or \$1,320 per year. That is a new item. What is the necessity for that?

Gen. MACARTHUR. All the Military Academy detachments, Mr. Chairman, have been reorganized in accordance with the new Army act.

Mr. ANTHONY. So the band leader now has the grade of warrant officer?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. What was the former pay of the band leader?

Gen. MACARTHUR. \$972.

Mr. ANTHONY. Then he gets a substantial increase of pay?

Gen. MACARTHUR. Yes, sir. As I say, the service detachments have been reorganized in accordance with the Army reorganization act, and the organization was fixed by the War Department. This puts us on the same basis as the service organizations, and of course was in compliance with the provision of that law and within the ratings to be distributed by the Executive from the total number of ratings provided for in that bill.

Mr. ANTHONY. You are asking for two band sergeants and assistant band leaders of the first grade, at \$74 per month, making a total of \$1,776 a year.

Gen. MACARTHUR. I think the easiest way to understand that would be to give you the organization of the band as it was last year and let you compare that with the proposed organization.

Mr. ANTHONY. What was the organization of the band last year? You are adding one new sergeant, are you not?

Gen. MACARTHUR. It has the same number of men in it. The organization is changed; that is, the ratings.

Mr. ANTHONY. You are asking in this bill for two sergeants, whereas you had one last year.

Gen. MACARTHUR. Last year the band consisted of 1 band sergeant and assistant leader, 15 enlisted musicians at so much pay, 15 enlisted musicians at so much pay, and 20 enlisted musicians at a certain amount of pay per month. Under the reorganization act the War Department has authorized this organization we are asking for here.

Mr. ANTHONY. Did you carry a drum major last year?

Gen. MACARTHUR. No, sir. Our band was not organized as were the other bands in the service.

Mr. ANTHONY. What is the necessity for having two band sergeants?

Gen. MACARTHUR. That is to give the necessary ratings to the band so we will be on a commensurate basis with other bands.

Mr. ANTHONY. Are they necessary? It means an increased expense.

Gen. MACARTHUR. They are necessary, because that is the established organization in the Army reorganization act. Our band, of course, could not be handled and run at a disadvantage as compared with every other military band in the service. I could not hold the band at all. The Army reorganization act has given a classification and a rating to bands which was superior to the one which existed before, and our band has been reorganized by order of the War Department along the same lines.

Mr. ANTHONY. Is there anything in the reorganization act which specifies the number of sergeants that have to be in the band? That is done by regulation, is it not?

Gen. MACARTHUR. That is done by executive regulation; yes. The total number of ratings is fixed by Congress, and the War Department apportions them to the different organizations.

Mr. ANTHONY. Obviously there could not be over a certain percentage of the first-grade men in certain organizations?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. If you could get along with a less number of the high-grade or extra-pay men in your organization, would it not be a proper thing to do to keep the number down rather than to utilize the full amount authorized by law?

Gen. MACARTHUR. Undoubtedly; but-----

Mr. ANTHONY (interposing). It looks as though you were getting along at West Point with a band at less expense than you propose to incur next year.

Gen. MACARTHUR. But you have reorganized the whole Army, and that would leave us behind other bands in the service.

Mr. ANTHONY. That is one of the things that we find all through the Army appropriation bill. The War Department has taken advantage of the authority conferred in the reorganization act to expend everything to the maximum.

Mr. Sisson. Notwithstanding the fact that the executive department is authorized to do this, there is nothing in the law that compels them to do it. If Congress gives the Executive a certain amount of money and he signs the bill, he would have to make his reorganization fit his money.

Mr. ANTHONY. To what extent are the bands benefited by the increased number of sergeants permitted under the reorganization act?

Gen. MACARTHUR. Of course, I am not familiar with the process by which the War Department arrived at these figures. I can say very frankly-----

Mr. ANTHONY (interposing). Does the increase mean an improvement in the quality of music, or is it simply an increase in dignity?

Gen. MACARTHUR. You can not hold the musicians. Under the old ratings at the Military Academy the band has been disintegrated. The amount we pay the musicians there is not within 50 per cent of what the local musicians are being paid in the State of New York.

The ratings of the Military Academy band were not within 20 per cent of what is paid to the Naval Academy band. It was considerably below what was paid to the Marine Band. I have had 11 musicians leave the Military Academy band to go to the Naval Academy band. That was under the old ratings. It would have been almost impossible to hold the band together under the old scale of pay, and if this reorganization had not been taken out of my hands and directed by the War Department I would have asked for increased ratings for the band as it existed.

Mr. ANTHONY. All of that would demonstrate that it would be quite unwise for the committee, it being impossible to get men for the band in competition with outside employment, to authorize about a 50 per cent increase in the personnel of your band. It would add to your troubles in getting men for the band because you would have to get a greater number.

In the makeup of your band you have dropped 20 enlisted musicians at \$30 per month, and have substituted 23 enlisted musicians of the second grade at \$53 per month, and 24 enlisted musicians of the third grade at \$45 per month. That gives your whole band increased pay.

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. They were given increased pay when the pay of the Army was increased, were they not?

Gen. MACARTHUR. No, sir.

Mr. ANTHONY. They were enlisted men in the Army before the war?

Gen. MACARTHUR. Yes, sir; but they were not paid from the Army bill at all, they were paid under our bill.

Mr. ANTHONY. How much of an increase in pay does this give the band men in all? Instead of paying 20 enlisted musicians \$38 a month, you propose to pay 23 of the enlisted musicians, second grade, \$53 per month?

Gen. MACARTHUR. The whole increase amounts to about \$8,000 for the entire band.

Mr. SISSON. These men get their quarters and heat?

Gen. MACARTHUR. They are like every other soldier; yes, sir.

Mr. SISSON. In private life they do not get that?

Gen. MACARTHUR. No, sir.

Mr. ANTHONY. You propose to carry 23 of your enlisted musicians at the second grade. That is practically at the rate of \$53 per month?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. You propose to carry 24 of them at the third grade, in which the pay is \$45 a month. Those grades are increased from \$38 a month, both of them? You are practically doubling the pay of the band?

Gen. MACARTHUR. No, sir.

Mr. ANTHONY. Has the pay of all bands throughout all branches of the service been increased in proportion to this?

Gen. MACARTHUR. Yes, sir. I do not know what the exact organization as fixed by the War Department was for the regimental band, but it must approximate to this.

Mr. CRAMTON. Leaving out of account the increase from \$38 to \$53 by the change of grade, what would one of these men in the band

who has been with you for three years receive? What does he get the \$38?

Gen. MACARTHUR. You mean everything he gets?

Mr. CRAMTON. Yes; longevity pay, additional pay, quarters, etc.

Gen. MACARTHUR. When he is first enlisted he would get, cold cash, \$38. He would get his military clothing—that is, his outer equipment, overcoat, blouse, breeches, shoes, and hat. He would get his board, he would have a barrack to live in, and a bed to sleep on, so that as far as his normal necessities of living go, without recreation, he would be carried along in addition to his pay.

Mr. Sisson. He gets his medical attention, the services of a doctor and his medicines?

Gen. MACARTHUR. He gets medical attention; yes, sir.

Mr. ANTHONY. Figuring roughly, his board and clothes at \$50 a month, half of the band will be getting the equivalent of \$130 a month—that is, of the musicians—and half of the band will be getting the equivalent of about \$95 per month.

Gen. MACARTHUR. Yes, sir. I think those are very fair figures. But those figures are nothing like what the ordinary musician gets outside.

Mr. ANTHONY. On the other hand, there are bands paid by the Government that get much less than this.

Gen. MACARTHUR. I do not know of any.

Mr. ANTHONY. I know of one at the soldiers' home at Leavenworth, and I doubt if the average pay of the band there would be more than \$40 a month. They are all young men.

Gen. MACARTHUR. Those men are allowed to go out and take outside contracts.

Mr. ANTHONY. No; very few of them.

Gen. MACARTHUR. These men at the Military Academy are absolutely limited.

Mr. ANTHONY. This simply shows that the War Department is taking advantage of the reorganization act to increase the pay of the band about 50 per cent all the way through.

Gen. MACARTHUR. All of our service detachments have been changed by order of the War Department.

Mr. ANTHONY. But they are not getting this pay now.

Gen. MACARTHUR. No, sir. Up to the end of this fiscal year we operate under our own bill.

Mr. ANTHONY. All of the other Army bands will get this pay?

Gen. MACARTHUR. I can not say that.

Mr. CRAMTON. Do you have much trouble keeping your band filled?

Gen. MACARTHUR. I have had a great deal of trouble up to within the last six or seven months. The band was not satisfactory, in my opinion, and I have handled the matter rather drastically. I have had several officers successively placed in charge of the band and we have finally arrived at a condition that I regard as acceptable, but it is very difficult to hold competent musicians. Everybody wants them, and the orchestras in the New York theaters will pay a competent man \$250 a month.

Mr. ANTHONY. But with the change of living costs and industrial conditions you find it easier than it was before to hold men when you get them?

Gen. MACARTHUR. It has been easier in the last six months.

Mr. ANTHONY. With the change in the cost of living and in industrial conditions?

Gen. MACARTHUR. It is much easier. You mean that I could hold the band under the old rate of pay? I can not hold 50 per cent of them under such circumstances.

FOR 20 PER CENT ADDITIONAL PAY.

Mr. ANTHONY. You have added a new item, "Twenty per cent additional pay, \$6,050.40." What is that?

Gen. MACARTHUR. That is the additional pay which these men get for length of service.

Mr. ANTHONY. That is the special increase for two years which was given to all branches of the service?

Gen. MACARTHUR. Yes, sir.

Mr. Sisson. Would that have a tendency to keep these men in the band? That would be an inducement to the men to stay, would it not?

Gen. MACARTHUR. Yes. So far as the band is concerned, under this rate of pay I think we will be better off than we have ever been before. I think we will keep all of the older men. There are some of those men who have been there for a great many years, men who came in practically as apprentices and were taught by the band leader to be musicians. Those men, of course, are loath to leave if they can live on the pay they get. Almost all of them are married and they have to get a living wage for themselves and their families or they will not stick. They can get \$75 a week if they leave us. They are all competent musicians.

PAY OF FIELD MUSICIANS.

Mr. ANTHONY. You maintain an organization of field musicians?

Gen. MACARTHUR. Yes, sir. Those are the bugle and fife men.

Mr. ANTHONY. Under the heading of field musicians you are asking for one sergeant of the third grade, at \$45 a month, or \$540 a year.

Gen. MACARTHUR. Yes, sir. That is a decrease.

Mr. ANTHONY. What is the reason for the decrease?

Gen. MACARTHUR. That is due to the reorganization which was put into effect. It has raised some ratings and lowered others. This man is one of those whose rating was given by the War Department as sergeant, third grade.

Mr. ANTHONY. He used to have the grade of first sergeant?

Gen. MACARTHUR. He was just a sergeant.

Mr. ANTHONY. You are asking for two corporals at \$37 a month, which is an increase of \$1 a month in their pay.

Gen. MACARTHUR. Yes, sir; that is due to the reorganization act.

Mr. ANTHONY. Is the grade of corporal a special grade? What specialist pay does he receive?

Gen. MACARTHUR. No specialist pay.

Mr. ANTHONY. That is the pay of the grade of corporal?

Gen. MACARTHUR. Yes, sir. These men are entirely different from the musicians in the band. They are not skilled musicians.

Mr. ANTHONY. You are asking for 9 privates, first class (sixth grade, specialists sixth class) at \$38 per month, and 19 privates, second class (seventh grade, specialists sixth class) at \$33 per month. That is a total of \$11,628. You are asking in the first line of the item for an increase of 2 privates and in the next two lines for a decrease of 2 privates.

Gen. MACARTHUR. Yes, sir. There is no change in the strength of the band. This is due to the provisions of the reorganization act.

Mr. ANTHONY. You are asking for additional pay for length of service, \$990.

Gen. MACARTHUR. That is longevity pay.

Mr. ANTHONY. And the provision for 20 per cent additional pay amounting to \$285.60, is due to the act of May 18.

Gen. MACARTHUR. Yes, sir.

Mr. Sisson. You have a Military Academy band for which you ask \$42,137.12. How do they differ from the field musicians? What do you mean by field musicians?

Gen. MACARTHUR. The field musicians are the bugle and drum and fife corps as differentiated from the band proper.

Mr. Sisson. That is the thing you march by?

Gen. MACARTHUR. They march by it at times. These men are the men who sound the service calls, and who turn out very frequently when the band does not turn out. They also turn out with the band.

Mr. Sisson. Is there any good reason why they should be carried as a separate unit from the academy band?

Gen. MACARTHUR. They are really a part of the band. They have always been carried this way. There is no real reason for separation in the estimate. It is merely a question of precedence. They are a component of the band.

Mr. CRAMTON. They turn out when practical use is wanted rather than art?

Gen. MACARTHUR. They turn out very much more frequently than the musicians of the band. At reveille we do not turn out the band. The field music turns out at meal formations and things like that. These men are very much harder working than the band in some ways, and less hard worked than the band in other ways.

Mr. Sisson. They get less pay?

Gen. MACARTHUR. Yes; these men are not skilled musicians.

PAY OF THE SERVICE DETACHMENT.

Mr. ANTHONY. Your next item is for the pay of the service detachment.

Gen. MACARTHUR. That has been reorganized also, as have these detachments.

Mr. ANTHONY. The service detachment consists of enlisted men enlisted for the purpose of performing labor about the academy?

Gen. MACARTHUR. Yes, sir. These are men who are soldiers in name only. They receive absolutely no military training, per se. They are enlisted for the work of plumbers, electricians, and so on. They are the labor force that keeps up the military city of West Point.

Mr. CRAMTON. You have no civilian employees in that class of work?

Gen. MACARTHUR. There are a few, but the bulk of this work is done by these men.

Mr. ANTHONY. Do you find that you can enlist men in the service detachment and secure that class of skilled labor you just mentioned at a lower cost to the Government than if you employed civilian labor?

Gen. MACARTHUR. I think in the long run it would be about the same; but there is this great difference, that when you employ a man as a civilian he can leave you when he wishes to, whereas a soldier can not.

Mr. ANTHONY. He is enlisted for a term of years?

Gen. MACARTHUR. With the fluctuation of prices so extreme as it is at present, if we had not had these men enlisted a year ago I suppose we would have lost the whole detachment. As prices come down the tendency, of course, would not be to leave us in such a way.

Mr. CRAMTON. Generally speaking, aside from the dollars and cents, from the standpoint of service, not only as to the work these men perform, but the organization generally at that post, what is your feeling as to the desirability of enlisted men or civilians for this work?

Gen. MACARTHUR. For a line command I think the most expensive labor in the world is soldier labor. To take men who have no pride in the special labor function and to attempt to have them do any type of skilled work is ruinous from a financial standpoint. You spoil such soldiers as they may be and you get practically not more than 15 or 20 per cent of efficiency of work. For men, however, who are specialists, who are enlisted and who are kept at their speciality I think it very advantageous. We have this army service detachment at West Point.

Mr. ANTHONY. They used to have one, I think, at Fort Leavenworth.

Gen. MACARTHUR. I think they have one at the General Staff College there. Those men are not soldiers at all except in name.

Mr. CRAMTON. But they are in the military service.

Gen. MACARTHUR. That is for purposes of control.

Mr. CRAMTON. In order to get the best results for that class of men, such as your service detachment, it is necessary that they be assured of service at a particular point, is it not?

Gen. MACARTHUR. Yes, sir.

Mr. CRAMTON. When these men enlist they know where the service is going to be.

Gen. MACARTHUR. Absolutely; and they know they are not going to have any military functions at all. These men are not even issued arms.

Mr. CRAMTON. If they felt that they were likely to be transferred you would have more trouble in getting them?

Gen. MACARTHUR. I think we would not get them at all.

Mr. ANTHONY. In looking over this paragraph I find you have increased the grade and pay of nearly all of your noncommissioned grades in the service detachment, probably in conformity with the new authority given under the reorganization act?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. And you have decreased a number of men as privates and in the other lower grades, and you are carrying more in the higher grades so that they may get the benefit of the increased pay?

Gen. MACARTHUR. Yes, sir; that is the reorganization act. In previous Army bills they have always paid these men extra-duty pay. These men have always drawn 50 cents a day in addition to their straight pay. That is done away with now. So the rates of pay of these men are very little changed.

Mr. ANTHONY. Without at this time going into the changes in the grades, you are asking for an increase of \$21,000 under this item for the service detachment?

Gen. MACARTHUR. Yes, sir; but you have to count against that extra-duty pay that was previously paid.

Mr. ANTHONY. How much does that amount to?

Gen. MACARTHUR. That was \$37,536.

Col. TIMBERLAKE. I can explain where those increases come in.

Mr. ANTHONY. Do you figure you get the same work performed by increasing the number of higher paid grades?

Col. TIMBERLAKE. Increasing the pay to the higher paid noncommissioned officers. We have cut out the corporals because the specialists get more pay than a corporal, so you can not have corporals. Nobody wants to be a corporal, because the privates get more pay than the corporals. So I have raised the corporals to sergeants and have raised some of the sergeants to higher grades, but the total pay of the sergeants amounts to \$39,520. The pay of the 68 noncommissioned officers in the old grades last year was \$34,500 and the extra-duty compensation for those men amounted to \$10,440, or a total for the 68 noncommissioned officers of \$44,940, against \$39,420 carried in those provisions on page 8. As far as the 68 noncommissioned officers are concerned, they will get less than they were paid last year with the increased compensation.

Mr. ANTHONY. To give a man more rank will you not get less work out of him?

Gen. MACARTHUR. No, sir. It is very desirable to get men superior quality and to keep them. The Army service detachment was demoralized last year.

Mr. Sisson. I notice that in 1912 you got \$80,808 and in 1921 you got \$167,097.

Gen. MACARTHUR. Yes, sir.

Mr. Sisson. Have you doubled the number of students at the academy since 1912?

Gen. MACARTHUR. Yes, sir; more than doubled.

Mr. Sisson. You had more than twice as many students in 1921 than you had in 1912?

Gen. MACARTHUR. Yes, sir.

Mr. Sisson. Has the overhead necessarily increased in that ratio?

Gen. MACARTHUR. No, sir.

Mr. Sisson. I am at a loss to know just why the overhead costs in eight years should be increased more than 100 per cent.

Col. TIMBERLAKE. In 1912 the pay of a private was \$15.

Mr. Sisson. I understand that.

Col. TIMBERLAKE. Now it is \$30 and \$35.

Mr. Sisson. That still will not altogether account for it.

Col. TIMBERLAKE. The increase of the detachment was from 125 in 1914 to 276 at the present time. That is the authorized strength for the detachment. The pay has been increased and the equipments and everything, so it brings that up to that amount.

Gen. MACARTHUR. There is a double increase. You have to consider not only the doubling of the size of the Academy itself, but the fact that the dollar only goes about one-half as far now as it used to.

Mr. Sisson. That was true 12 months ago, but I do not know anything that goes as far as the dollar now, if you have it in cash.

Gen. MACARTHUR. I still think that the cost of living in 1921, as compared with 1912 is very incommensurate.

Mr. Sisson. I might observe that all throughout the United States there are millions of people wanting cash to pay their state, county and municipal taxes and that is the condition in which the country finds itself now.

Mr. ANTHONY. I notice on page 8 that you ask in one item for 124 specialists, third class, at \$15 per month, and in another item 84 specialists, fourth class, at \$12 per month, in addition to their other pay.

Col. TIMBERLAKE. Yes, sir; that is what they were granted by the extra compensation. After giving these men \$33 a month—that is, the privates—you gave them extra compensation ranging from 35 to 50 cents a day, and some of those men drew \$20 a month extra because they would work 12 hours a day.

Mr. ANTHONY. Are you not continuing that extra pay?

Col. TIMBERLAKE. It was cut out by the reorganization act.

Mr. ANTHONY. You are continuing that in this language?

Col. TIMBERLAKE. No, sir, we are not; only in the case of the specialists. That is according to the reorganization act.

Mr. Sisson. To get what this cost you last year you would add 50 cents a day, or \$37,000, to the amount appropriated, \$167,097?

Col. TIMBERLAKE. No; that includes the extra pay.

Mr. Sisson. Then you do not effect any economy at all, because you are asking for \$188,100 for 1922.

Col. TIMBERLAKE. We can not economize when according to the reorganization act the men get more pay. Then they get 20 per cent increase besides. Take the private, first class, last year he was getting \$33 a month, and under the provisions of the reorganization act it is now \$35 a month.

Mr. Sisson. How many people have you in this detachment?

Col. TIMBERLAKE. We have 276. I can explain where these increases come in. If you go down to the bottom item on that page for 20 per cent additional pay, that item was not in the bill last year, and in the act of May 18, 1920, gives them 20 per cent increase for the next two years. That is \$7,884. Then the additional pay for length of service last year was \$21,777, and the estimate for next year is \$27,360. There is an increase of \$5,583, or a total of \$13,476. The 120 specialists and 84 specialists get pay in those grades, which is more than the pay they would get by the additional compensation.

Mr. ANTHONY. What you are doing in these two instances is to take 124 privates who get \$35 a month and 84 privates who get the same amount and you are adding \$15 a month to their pay in one case and \$12 in the other case?

Col. TIMBERLAKE. That is according to the provisions of the reorganization act.

Mr. ANTHONY. You have the authority for doing it under the reorganization act, but that does not compel you to do it?

Col. TIMBERLAKE. No, sir.

Mr. ANTHONY. You are taking advantage of the provisions of the reorganization act to give them the increase?

Col. TIMBERLAKE. It is the same idea as in the case of the extra compensation granted last year.

Mr. ANTHONY. That has been taken away from them.

Col. TIMBERLAKE. That has been taken away from them. Congress fixed the pay for the specialists, however.

Mr. ANTHONY. If you want to take advantage of their service you can not enlist a private for the service detachment on his base pay as an enlisted man without paying him something extra!

Col. TIMBERLAKE. If we enlist a man there we do not make him a specialist right away, until he develops. But it may be we will get transferred from other detachments old men who are competent to do that work right away, and they would go in there at a specialist rating.

Mr. ANTHONY. You are going to have 139 privates at \$30 a month and that is all they would get?

Col. TIMBERLAKE. No, they will get the \$30 a month and —

Mr. ANTHONY (interposing). You are providing here in line 15 and 15 for 139 privates at \$30 a month.

Col. TIMBERLAKE. That is their base pay.

Mr. ANTHONY. They will get 20 per cent on top of that?

Col. TIMBERLAKE. They will not get the 20 per cent. That is authorized for grades above private, first class.

Mr. ANTHONY. That is all they will get?

Col. TIMBERLAKE. They will get some of the specialist ratings.

Mr. ANTHONY. How do you provide for their specialist ratings?

Col. TIMBERLAKE. We provide for 84 specialists, fourth class, at \$12 a month, and 124 specialists, third class, at \$15 per month. According to the reorganization act only the privates and privates first class, can be given specialist ratings. The War Department has ruled that all those men drawing extra-duty pay shall be prohibited from receiving extra compensation at 35 cents a day. They would be paid at the rate of \$12 a month, with a specialist rating, and those who would be getting 50 cents a day extra pay would receive \$15 a month specialist rating.

Mr. ANTHONY. The purpose of the extra-duty pay used to be to give it to an enlisted man when he performed certain labor above his post in addition to his regular pay. But where you enlist a man in a service detachment, he has always understood that he is going to receive extra pay, but that he is performing that service for his regular enlisted pay.

Col. TIMBERLAKE. This service detachment has always had extra pay.

Mr. ANTHONY. It is evident that they have been given extra pay.

Col. TIMBERLAKE. You could not keep them, because last year when the prohibition of extra compensation came up every man whose enlistment was up left the detachment. For six months there were 50 short in that detachment.

Mr. CRAMTON. Where is the base pay provided for these specialists at \$15 a month and the 84 specialists at \$12 a month?

Col. TIMBERLAKE. That is provided for in the item for 69 privates first class at \$35 a month, and in the item for 139 privates first class at \$30 a month. Those are not additional men.

Mr. ANTHONY. How many men are there in this service detachment?

Col. TIMBERLAKE. There are 276.

Mr. ANTHONY. Have you made the proportion of the specialists in that detachment exactly in proportion to the number authorized by law? The law says that the number of men rated as specialists, first class, shall not exceed seven-tenths of 1 per cent of the whole.

Col. TIMBERLAKE. That does not apply to any organization. The War Department can give any organization its whole complement in specialists, if they want to.

Mr. ANTHONY. Provided they deduct it from the other places.

Col. TIMBERLAKE. Yes, sir.

Mr. ANTHONY. You are exceeding the number authorized by law in the case of the detachment at West Point.

Col. TIMBERLAKE. That is by authority of the War Department because they distribute these ratings throughout the service. They can give one organization everybody of that rating and give the other organizations none.

Gen. MACARTHUR. They have taken the whole Army and divided up the ratings.

Mr. CRAMTON. You are providing that all of these privates shall be given specialist pay. You have 208 of those in those two classes, and you provide for specialist pay for 208.

Col. TIMBERLAKE. Yes, sir; that is because those men drew extra compensation by act of Congress.

Mr. CRAMTON. But they all go immediately into the specialist class.

Col. TIMBERLAKE. That is according to the War Department General Order No. 36, which says:

Gen. MACARTHUR. We intend that every man shall get that.

Mr. Sisson. This Army reorganization bill is fearfully and wonderfully made. It is the most successful piece of legislation ever accomplished among civilized nations, so that the Congress, appropriating money, can absolutely have no control as to how one single dollar of it can be expended. There never was a bill like that prepared and enacted before in the history of mankind.

Mr. ANTHONY. It is very evident that the War Department has taken advantage of the authority granted in the reorganization act to organize the Army to the maximum possibility.

Mr. Sisson. That is true, and they ought not to have done it.

It does not make a very good showing when in 1912 you had \$80,808 while now you are asking for \$188,100, or about 150 per cent increase in this service, which really provides for the labor that is done about the Military Academy. If every other department of the Government should increase in that proportion—and this is a small item in comparison with the whole, but you have to look after every item, because there are thousands of these small items. It seems to me it is a pretty bad showing to come before Congress and endeavor to justify this appropriation.

Gen. MACARTHUR. Of course we are not responsible for the change in organization.

Mr. Sisson. I know that. I would like to know who were the drafters in the War Department of that reorganization act, because they have successfully enabled every man who comes before the com-

mittee to pass the buck to the other fellow, and it will finally land always with the poor Secretary of War who, of course, can not possibly look after the details of the great Army appropriations.

Col. TIMBERLAKE. Speaking about that increase, a great part of that increase is due to the reorganization act or to the emergency act of April, 1917, under which the Army was enlarged and the pay of the privates was immediately doubled, from \$15 to \$30 a month. That makes quite a change in this appropriation.

Mr. Sisson. I am not undertaking to fix the responsibility. I do not try to accomplish the impossible, because you can not fix the responsibility under that reorganization act.

Col. TIMBERLAKE. In this appropriation we are trying to bring the pay to meet the conditions of the reorganization act. The pay of these noncommissioned officers, while it is in higher grades, with the increased compensation they have been drawing heretofore it is less.

Mr. ANTHONY. Here is the point. This Congress expects us to do anything, to reduce the cost of operating the different activities of the Army during the next fiscal year from what they were in the current fiscal year. You had for 1921 an appropriation for that purpose of \$167,097. In this estimate you are asking for \$188,000, and I seriously doubt if Congress will authorize an increase of that kind, even though you are doing it under the authority of the reorganization act, and if you are doing it under that authority we have got to take such steps as may be necessary to prevent it.

Instead of getting more money in this year's appropriation there will be less money appropriated for all the activities of the Army, not only in connection with the size of the Army, but all the activities of the Army.

Col. TIMBERLAKE. You will have to cut down the number of men or cut down the number of specialists, and we will lose men.

Mr. ANTHONY. Take your five master sergeants. The master sergeant now corresponds with what used to be the master electrician?

Col. TIMBERLAKE. Yes; and the pay used to be \$75 a month.

Mr. ANTHONY. What class of work do these five master sergeants perform?

Col. TIMBERLAKE. They are the most expert men I have. I take those mechanics that I have up there, whether they are electricians, masons, blacksmiths, or machinists and make the master sergeants out of them.

Mr. ANTHONY. What are they getting this year?

Col. TIMBERLAKE. \$45 a month. Last year they got \$45 a month and \$15 additional, which made their pay \$60 a month.

Mr. ANTHONY. You are proposing to increase their pay for next year \$15 a month, when in every employment in civil life the rate of pay will be reduced. Take your 10 technical sergeants. What class of men will they be?

Col. TIMBERLAKE. Some of those mechanics.

Mr. ANTHONY. Carpenters?

Col. TIMBERLAKE. Carpenters, plumbers, electricians, and so on.

Mr. ANTHONY. What pay are they getting this year?

Col. TIMBERLAKE. \$60 a month. They all came within the prohibition of extra compensation. It was appropriated for them, but the comptroller has decided that we can not pay it to them.

Mr. Sisson. Two of the most popular institutions in the United States are the Military Academy and the Naval Academy. We do not want to do anything that will render you unpopular.

Col. TIMBERLAKE. The amount of the increase for the 20 per cent additional pay is \$7,800.

Mr. ANTHONY. The excuse for this increase is the saving in extra duty pay.

Col. TIMBERLAKE. The saving in extra duty pay; yes, sir. The additional pay for length of service is according to law. There is an increase of \$6,000 in that.

PAY FOR CAVALRY DETACHMENT.

Mr. ANTHONY. The next items cover the pay of the Cavalry detachment. Is this pay of the men in the Cavalry detachment computed on the same basis as the pay of a troop of Cavalry at a post?

Col. TIMBERLAKE. Exactly.

Mr. ANTHONY. Is there any increase over the pay of the Cavalry in the regular organizations?

Col. TIMBERLAKE. The only increase was where they had extra compensation last year. So many of this detachment under the Military Academy bill were authorized to receive 50 cents a day and 35 cents a day as extra compensation.

Mr. ANTHONY. That is under the bill providing for service pay?

Col. TIMBERLAKE. No, sir; under the Military Academy bill.

Mr. ANTHONY. Where was that authority?

Col. TIMBERLAKE. That is carried under the provision for extra pay of enlisted men.

Mr. ANTHONY. You have cut out all extra pay this year?

Col. TIMBERLAKE. Yes, sir. That is all called for now in the specialist grades.

Mr. ANTHONY. You are asking for a total amount of pay for the Cavalry detachment of \$134,717, as against an appropriation for 1921 of \$102,428.

Col. TIMBERLAKE. There is \$5,000 increase right there; there is \$3,000 there according to law. The other is based on the specialist pay which takes the place of these items over there.

Mr. ANTHONY. How much is the increased pay authorized in the act for the current year for the Cavalry detachment?

Col. TIMBERLAKE. Their extra compensation?

Mr. ANTHONY. Yes; what is the total of that?

Col. TIMBERLAKE. That amounts to \$4,762.15.

Mr. ANTHONY. That would account for practically \$12,000 that would be taken in that way, and yet you are providing for an increase of \$32,000.

Col. TIMBERLAKE. There is an increase in the number of men of 45 men.

Mr. ANTHONY. What is the necessity for increasing the Cavalry detachment by 45 men for the next year over what it was for this year?

Gen. MACARTHUR. There is a very great necessity; the detachment at present is not large enough to handle the number of horses assigned to it. With the increase of the corps the work of tending horses has increased in arithmetical ratio. The men in the detachment now are

really nothing but grooms and caretakers of horses. They have eight horses per man with the present size of detachment.

That means that those horses have to be groomed at least one day after hard riding, and taken to the riding hall and to the grounds. Those men work from 8 to 10 hours a day.

Mr. ANTHONY. Is the Cavalry detachment an organization itself?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. Do they have military duties to perform?

Gen. MACARTHUR. To a limited extent.

Mr. ANTHONY. Do they ever appear as a separate Cavalry organization, drilled as Cavalry?

Gen. MACARTHUR. A minimum of drill; just enough so that when personages entitled to the honor come there, these troops are set up to receive them. That is all. Of course, they go with the Corps of Cadets when it goes into the field.

Mr. ANTHONY. In this paragraph you are exceeding the number of specialists authorized for regular service organizations?

Gen. MACARTHUR. For a troop?

Mr. ANTHONY. Yes. For instance, you ask for 26 specialists of the fourth class, and in the Army at large there is authorized 4.7 per cent of the organization in that grade, which would give you sufficient men trained in the fourth class, but you are asking for specialists of that class.

Col. TIMBERLAKE. This is not comparable to that, because these men are men who have had extra compensation under previous Military Academy appropriations.

Mr. ANTHONY. Did they have extra-duty pay last year?

Col. TIMBERLAKE. Yes, sir; it amounted to \$4,762.

Mr. ANTHONY. But in addition to that, and making due allowance for that, you are asking for an increase of practically \$20,000 in the Cavalry. You are asking for an increased number of privates.

Col. TIMBERLAKE. Forty-five.

Mr. ANTHONY. Does that take up all that increase?

Gen. MACARTHUR. On page 18 you will see some of these items. They cut out the item for extra pay of 9 enlisted men of the Cavalry, and for extra pay of 23 enlisted men of the Cavalry, including 3 teamsters, 11 laborers employed in keeping clean the equine by cadets in riding and equitation other than military, 7 unqualified trainers engaged in training mounts used by cadets in riding and equitation other than military, and 2 laborers for haying and sprinkling and assisting in the care of the riding hall.

Mr. ANTHONY. If you get these 45 extra men, instead of caring for eight horses you will reduce the number of horses you have to care for?

Gen. MACARTHUR. Yes, sir. We are also going to increase the number of horses because we expect to get 300 more cadets. We can figure about 10 horses to every 80 cadets.

Mr. ANTHONY. If we want to keep the appropriation down to the same limit this year we will have to cut down your authority for the increased number of privates.

Gen. MACARTHUR. Practically so; yes, sir.

Mr. CRAMTON. There will be about 40 additional horses.

Mr. SLEMP. Have the developments of modern warfare increased the need of the Cavalry or diminished the need for the Cavalry in most cases?

Gen. MACARTHUR. Of course, I answer that question as my opinion only. It was very thoroughly demonstrated that on fronts and terrains as circumscribed as the western front of Europe the use of Cavalry was a minimum and its possibilities approached a minimum. Upon such terrain as we might be employed in this country you might require a concentration of Cavalry; indeed, a great burden might be placed upon the Cavalry.

Mr. SLEMP. What particular functions does the Cavalry now perform, or do you propose having it perform?

Gen. MACARTHUR. I think I see what your idea is, that is why we need to lay so much more stress upon the Cavalry at the Military Academy.

Mr. SLEMP. Not only that, but I want to have your expert opinion as applied to the Army. I understand the reorganization act determined that the Cavalry should have so many men. But the argument has been made at the same time that the Air Service constitutes the eyes of the Army, and foraging in the old sense, the getting of quartermaster supplies by the Cavalry is done away with. You have gone through this war without having made an attack by the use of Cavalry. The speed at which the Cavalry advances does not compare with the speed of motorized vehicles. Outside of manual training, and making a good appearance in an inaugural parade, where does the Cavalry fit in?

Gen. MACARTHUR. Our training at West Point is basic equitation. Every officer should know how to ride and care for animals.

Mr. SLEMP. I want to get your viewpoint in connection with Cavalry from the standpoint of the philosophy of the Army in fighting.

Gen. MACARTHUR. I can sum it up in a few words. I generally agree with you.

Mr. SLEMP. How does that find its effect in the appropriations? How could you translate your analysis into lack of appropriations.

Gen. MACARTHUR. I will explain it very readily. Originally at West Point Cavalry training was largely for the purpose of teaching the use of Cavalry as a shock weapon.

Mr. SLEMP. Back of all that, does not West Point undertake to fix correct principles of warfare?

Gen. MACARTHUR. Yes.

Mr. SLEMP. Why do you not just take the position that we do not need cavalry any more, and therefore cut these appropriations down instead of increasing them?

Gen. MACARTHUR. I think there is an entire difference between cavalry and the knowledge and use of the horse. I think every military man is certain not only to have to use a horse during his career, whether he is a cavalryman or an infantryman, or is in any other branch of the service, but he will have to know and understand the care and maintenance and the handling of a horse.

Mr. SLEMP. If you do not need horses in the Army as cavalry, how would that position be justified?

Gen. MACARTHUR. The number of horses in the Army for the Cavalry does not comprise the entire number of animals in the Army. We use animal-drawn transportation to a considerable

extent, and there are certain terrains in this country where you could not possibly depend upon any other class of transportation for supply. We not only haul supplies with that type of transportation, but an appreciable percentage, over 50 per cent, of the guns we send into action with the Field Artillery are still drawn by animals.

Mr. SLEMP. That is because you have not perfected a motor of the kind you want, and we are appropriating money to make such motors.

Gen. MACARTHUR. Yes; but I think the transformation is a gradual one. I think you would make a mistake to make the change revolutionary rather than evolutionary.

Mr. SLEMP. You argue for the displacement of the service in the organization, but do not displace the service. The justification for the Air Service proposition is that it takes the place of cavalry but when it comes to appropriations, not only in this item but in other items, we do not find any expression given to that idea at all.

Gen. MACARTHUR. I am far afield from my own sphere.

Mr. SLEMP. I was thinking that you, being at West Point and to a certain extent fixing the military thought because you are training young officers in the methods of warfare and the respective usefulness of the various branches of the service, would have fixed educational views in regard to them.

Gen. MACARTHUR. Yes, sir; I have. The training we give at West Point, as I said, is fundamental and basic. It is not for the purpose of training the future cavalryman or field artilleryman or infantryman. It is to give a basic military character to the boys that are graduated into the Army at large. All of the special training I have named in the various branches is taught the graduates of the Military Academy in basic service schools after they leave our institution. We do endeavor to give at West Point a cross section, a bird's-eye view of the Army as a whole, so that the men will have a proper background upon which to hang their individual training in the basic schools. One of the most fundamental of military requirements of military character, is the ability of an officer to not only ride a horse but to supply the horse; that is, to care for the horse. The training at West Point 20 years ago, when the appropriation was so small was based, perhaps, on a different idea. I was a cadet at that time and the Cavalry training consisted in troop training. We were trained in the use of a Cavalry troop as a shock weapon, and the training was largely confined to that laid down in the Cavalry regulations. We do not do that sort of thing now except in a very general sort of way.

The training of the cadets now is in equitation, and by that I mean not only horse riding but horse care. Every man who goes through the institution is taught to ride; he has got to be able to do more than get upon a horse and tie his hands behind the pommel of a saddle and hang on; he has got to be a good rider. He is very carefully taught the stable minutia of the animal. We do not attempt to train them in the tactical use of Cavalry except in the rudimentary form of troop drill. At least 90 per cent of their training is along equitation and stable lines.

Mr. SLEMP. I would suppose, however, that the study of equitation was based on the theory of the continued use of the horse in the Army for Cavalry purposes.

Gen. MACARTHUR. No, sir; the use of a horse in the Army for Cavalry purposes is one of the many uses of the horse. It is my belief that the time has not come at all to discard the horse as a part of the military equipment of the soldier. I believe it is as thoroughly essential to-day as it ever has been for officers to understand how to handle animals.

Mr. SLEMP. You say that, despite the disappearance of horse-drawn vehicles?

Gen. MACARTHUR. I believe that the day of the horse is on the decline in military life, and in spite of the fact that I believe thoroughly, with you, that on a terrain such as Europe presented to us on the western front, with which I am very familiar, that the horse found a minimum application, I do not regard the equitation course at the Military Academy as excessive.

Mr. ANTHONY. I agree upon the necessity of instruction in taking care of the horse at West Point, but the nub of Mr. Slemp's question would seem to be whether you agree with the idea of maintaining in our Army such as we propose to maintain in this country a Cavalry establishment as large as 20,000 men?

Gen. MACARTHUR. Of course, the number you have would be largely dependent upon the complete size of your Army. I do not know what is contemplated for the size of the Army.

Mr. ANTHONY. We have approximately 20,000 now.

Gen. MACARTHUR. That is at its present strength?

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Mr. ANTHONY. Do you think there is a necessity for that number of cavalry in proportion to the other arms at the present time?

Gen. MACARTHUR. It would be my judgment with the special problem that faces us that it would.

PAY FOR ARTILLERY DETACHMENT.

Mr. ANTHONY. Under the head of Artillery detachment, page 11, you ask for 63 privates.

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. This is an increase of 23 over the language of the bill of last year. Do you propose to enlarge your Artillery detachments?

Gen. MACARTHUR. Yes, sir, we ought to have the number now requested.

Mr. ANTHONY. What is the necessity for an increase in the number of enlisted men in the Artillery detachment?

Gen. MACARTHUR. The Artillery detachment commander cares for a great amount of property. He has the equipment of about two battalions. He complains that he can not handle all of it with his present strength. He has not only horse-drawn batteries but motor-drawn ones. He has not only the ordinary fieldpieces but the larger types of guns, so that he has there an amount of property and equip-

ment that he is not able to care for and handle and instruct in. He has the equivalent of practically two battalions, as he tells me. He claims that he needs these men.

Mr. ANTHONY. How many guns are in active use?

Col. TIMBERLAKE. There are several batteries to be taken care of by this detachment.

Gen. MACARTHUR. Seven batteries, roughly speaking.

Mr. ANTHONY. How many horses do you have with your Artillery detachments to care for?

Gen. MACARTHUR. He has about 187.

Mr. ANTHONY. The care of horses would be involved as in the case of the Cavalry detachment?

Gen. MACARTHUR. Yes, sir; only this detachment is very different from the Cavalry detachment. This unit approximates to a Cavalry detachment. The duties and service of this detachment are therefore along the same lines as the line. Those of the Cavalry detachment are very different. Those men are principally hostlers. These men have to go through target practice and assist in the training of cadets, to take the field, and so on.

Mr. ANTHONY. You provide for the pay of one technical sergeant, second grade, \$967, to replace one chief clerk at \$36 per month?

Mr. CRAMTON. In that connection he omits in each case the rate of pay and leaves it to the person interested to divide and determine. For instance, formerly one chief mechanic, \$36 per month, is now technical sergeant, \$967.80, leaving it to be figured out what the rate of pay is per month. In the same way, formerly 12 sergeants, at \$130 a month, now it is 24 sergeants, \$15,552. In all the cases I note the rate of pay per month has been dropped. Is that continued in the new language?

Mr. ANTHONY. This gives the pay of one technical sergeant, which is fixed by law at so much.

Mr. CRAMTON. That applies to all this?

Mr. ANTHONY. Yes, sir.

Mr. CRAMTON. I notice it is a different practice than that followed in the Cavalry.

Mr. ANTHONY. This proposed estimate was the latest estimate received from the War Department to increase the Artillery detachment from \$129,181 to \$132,844. During the current year you have allowed \$93,204 for your Artillery detachment.

Gen. MACARTHUR. \$93,000.

Mr. ANTHONY. And also I notice in your proposed reorganization you are increasing the grades all the way through. For instance, you allow two of the first grade at \$74 per month, instead of one technical sergeant, second grade, that is proposed in the bill, and the technical sergeant proposed in the bill replaces one chief mechanic at \$36 a month that you now have. Is not that a pretty rapid jump of one chief mechanic at \$36 a month to two first-grade men at \$74 a month each?

Gen. MACARTHUR. Yes, sir.

Mr. CRAMTON. Even though that is in the law, it is quite inconvenient for one who has not memorized it to follow what you are doing when those rates are dropped out.

Mr. ANTHONY. The increases made in the bill are the ones recommended by the academy officials?

Gen. MACARTHUR. To some extent, based on the Army reorganization act.

Mr. ANTHONY. Who furnished you with this proposed organization of the Artillery detachment?

Gen. MACARTHUR. The organization is the one approved by the War Department. The department directed that the old detachment organizations and methods and manner of rating would be discontinued, and in place thereof I was to submit new recommendations for detachments in accordance with the Army reorganization bill. I called upon all commanding officers of detachments to make a study of their detachments and submit their reports. Those reports were revised to some extent in my own office and were forwarded to the War Department. I understand that the War Department received such recommendations from all service detachments, not only at West Point, but at other and similar places, that a certain percentage of ratings was given to these service detachments, and then assigned thereto by the War Department.

Mr. ANTHONY. By the General Staff?

Gen. MACARTHUR. I could not tell you; I do not know.

Mr. ANTHONY. From whom in the War Department did this new organization proposed come?

Gen. MACARTHUR. It is in accordance with the reorganization bill.

Mr. ANTHONY. As it appears in our bill?

Gen. MACARTHUR. Yes, sir.

Col. TIMBERLAKE. Part of this increase in pay is due to several items of extra compensation cut out later on, amounting to about \$7,000.

Mr. CRAMTON. Is it all the way through the maximum permitted under your reorganization bill?

Gen. MACARTHUR. I will not say technically, but I am sure it is.

Mr. CRAMTON. As to number and everything else?

Gen. MACARTHUR. Yes, sir.

Mr. CRAMTON. Then why do we not put in about three lines under artillery detachment, referring to section so and so of the reorganization act, so much money, whatever it is.

Mr. ANTHONY. The reorganization act would authorize a maximum.

Mr. CRAMTON. I understand the maximum is contained here.

Mr. ANTHONY. You mean that is the purpose?

Mr. CRAMPTON. No discretion exercised by the department as to how much they require, but the maximum authorized by the law is here.

Gen. MACARTHUR. That is the same proportion that you limited the War Department to in the whole Army bill, you just make this a small cross section.

As to these detachments, I would like to say that the reorganizations are due to the fact that for the first time the West Point detachments have been by law made a part of the Army proper. Heretofore the Army bill has provided for the Army at large and the Military Academy bill has provided in addition for these detachments at West Point. The Army reorganization bill has taken those detachments up and made them an integral part of the service proper. In doing so the War Department fixed the organization of the detachments in accordance with the general provisions that the

bill provided. It was with great regret that we at West Point saw this. We would very much prefer to have the detachments as they were before. We would be very willing to have all of these organizations go back to what they were last year with the proviso for increased pay that was written in the reorganization act.

The endeavor on the part of the department has been in this case to reorganize those detachments so as to provide a commensurate rate of pay to the men that were in the detachments, and at the same time coordinate the detachments as far as possible with the reorganization bill, and the ratings that are given the organizations of the line. If you should sum-total the increased money that is provided for all of these detachments, it would amount to about \$6 per man per month. If we had the old bill of last year with the increase of pay which was provided for in the act of May of last year, it would approximate the same, although it would probably be a little less. I have not figured it out exactly, but the effort has been to coordinate the old ratings with the present grades established in the Regular Army, so as to not decrease the pay of any of the men that were at the academy. That is combined with certain actual increases in personnel. We have asked all told for an increase of about 70 men.

Mr. ANTHONY. In all the different detachments?

Gen. MACARTHUR. All the detachments; yes, sir. The increased amount of money called for is probably \$100,000. Of that probably \$40,000 would be for this new increment of men and the rest is due to the reorganization and the increase of pay.

Mr. ANTHONY. If you estimate on this old figure of 20 per cent additional pay.

Gen. MACARTHUR. That is what I mean by increased pay.

Mr. ANTHONY. In the Army pay bill the figures already given show that, including 20 per cent increase.

Col. TIMBERLAKE. Yes, sir.

Mr. ANTHONY. That includes the 20 per cent increase. I note in the academy 20 per cent additional pay is added.

Gen. MACARTHUR. That is because the item is not a permanent one. It was only provided for to cover the fiscal year. If it was permanent we would not want to come before the committee every year and have to go through the long explanation involved in doing away with it. It would be easier to cut the item out if it is independent.

Mr. ANTHONY. Do you propose to recommend to the committee that we adhere to the terms of the detachment as you have given them here in the bill or that we accept the new organization for the detachment that is proposed by the department in conformity with the reorganization act?

Gen. MACARTHUR. Of course, the War Department has directed that we submit this in this form.

Mr. ANTHONY. That is in the new form you submitted a few moments ago?

Gen. MACARTHUR. Yes, sir; and I suppose that is in accordance with the present law. If we took the old form you would have to put some provision in so that the Military Academy detachments would be provided for in this bill.

Mr. ANTHONY. What is the authority for reorganizing the detachments at West Point in accordance with the same organizations in the Army?

Col. TIMBERLAKE. Section 4 of the reorganization bill.

Gen. MACARTHUR. I do not think if this issue had been raised before the passage of the reorganization act that these detachments would have been included. They are not properly part of the line of the Army, at all, and it is very difficult to make them so conform. West Point was not consulted at all with reference to the inclusion of these detachments in the act.

Mr. ANTHONY. It shows that the War Department has not reorganized the detachments at West Point until the recommendation that they now submit to this committee is made in accordance with their construction of the reorganization bill.

Gen. MACARTHUR. We are already reorganized on order. We have reorganized the detachments in accordance with those ratings. That was by War Department order. We did that at once on receipt of the order.

Mr. ANTHONY. Have they given you figures for each one of the different detachments from which you submitted one for artillery, and you have them from all of the detachments.

Gen. MACARTHUR. Yes, sir; we were called upon for recommendations and we submitted the recommendations, and the War Department endeavored to organize these detachments, I fancy, so as to not decrease the ratings of the men and at the same time to make them as far as possible coincide with the average of the line.

Mr. ANTHONY. I think the point involved is one of construction of the Army reorganization act, and I think it would be simpler for the committee to construe the language that is printed in the bill.

Gen. MACARTHUR. The whole thing amounts to an average increase of about \$6 per month per man. There are, in round numbers, about a thousand men up there.

Mr. ANTHONY. There is no reason why these organizations at West Point should not continue to be carried on the same basis as they have been heretofore, is there?

Gen. MACARTHUR. None whatsoever, except the interpretation that is placed upon the law now, which is that they must conform to the new Army organization act.

FOR ADDITIONAL PAY FOR EXPERT FIRST-CLASS GUNNERS.

Mr. ANTHONY. I notice on page 12, for additional pay for expert first-class gunners, \$5 each per month; first-class gunners, \$3 per month; second-class gunners, \$2 per month. You ask for \$9,000 instead of \$12,080 provided in the current appropriation bill. Why that increase?

Gen. MACARTHUR. The commander of the Artillery detachment thought that twice as many men would be qualified during the coming year. The rating is open to all men, and his detachment is increasing very much in efficiency. He thinks he will have twice the former number qualify.

Mr. ANTHONY. Have you any fixed rule as to the number of men in Artillery detachments who are designated as first-class gunners?

Gen. MACARTHUR. No; that is a qualification that any man can earn.

Col. TIMBERLAKE. Subject to examination?

Gen. MACARTHUR. Subject to examination. Every man in the detachment, if he had the qualification of gunner and demonstrated it, would receive that extra pay.

Mr. ANTHONY. The same way as in every Artillery organization that if every man demonstrated it by his efficiency he would be carried as a first-class gunner?

Gen. MACARTHUR. He would, sir; this is just an estimate of the number that will qualify.

ADDITIONAL PAY FOR LENGTH OF SERVICE.

Mr. ANTHONY. You increase the additional pay for length of service from \$6,000 to \$9,000. Is that because of increases you have made?

Gen. MACARTHUR. The number of older men.

Col. TIMBERLAKE. And it is also due to longevity of 10 per cent. every five years—increase of pay due to length of service.

FOR ADDITIONAL PAY OF ENLISTED MEN.

Mr. ANTHONY. For additional pay of enlisted men under the proviso in section 24b of the Army reorganization act of June 4, 1920, \$500.

Col. TIMBERLAKE. That is a proviso that states that no man during his present enlistment shall receive less pay. Some men will receive less pay due to demotion under this reorganization than they did under the old item, and amounts to about \$500.

Mr. ANTHONY. According to that interpretation, you would be compelled to maintain every man in the enlisted ranks to which he had been assigned before reorganization.

Gen. MACARTHUR. He would have to get as much pay, and in the reorganization there were some of these men that in spite of all efforts fell below their old rating, and this item provides for them.

Mr. ANTHONY. You have the power to change their grades at any time?

Col. TIMBERLAKE. Only due to the inefficiency, or by courts martial and in the reorganization act the comptroller has said that these changes of grade are not changes of grade that would justify different rates of pay from what they had heretofore.

Mr. ANTHONY. So you have to try to find a grade that will maintain the same pay for a man that he had before?

Gen. MACARTHUR. Yes; that has been undoubtedly one of the guiding principles in the committee of the War Department in considering the matter.

PAY OF ENGINEER DETACHMENT.

Mr. ANTHONY. Take up the engineering detachments. I suppose that would be covered by the same principle.

Gen. MACARTHUR. The same thing; the engineering detachment more nearly conforms to the line of the Army than the other detachments.

nents. It was originally a part of the line of the Army and it had the same organization, so there is really less change in that than in most of the others.

Mr. ANTHONY. You are asking for an increased number of enlisted men?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. There is nothing, apparently, in the reorganization act as to the number of men you shall maintain in the detachment?

Gen. MACARTHUR. No, sir; the size of these detachments and the ratings now are entirely in the hands of the War Department, and, of course, in the hands of Congress. The size of the detachments are given us by the War Department, and we get the appropriations from Congress. If Congress does not appropriate, of course, they will fix by that process what we can have.

Mr. ANTHONY. Then you have had the allowance of grades the same as in other detachments?

Gen. MACARTHUR. Yes, sir. We are asking for an increase of 17 men. The ratings in this detachment are decreased.

Mr. ANTHONY. But you are asking for an increase of \$17,000.

Gen. MACARTHUR. Yes; to cover the new ratings and new men.

Mr. ANTHONY. And the increase in the number.

Gen. MACARTHUR. That item would cover the increase in the number.

Mr. ANTHONY. I am speaking about the total item.

Col. TIMBERLAKE. The total amount is about \$17,000.

ADDITIONAL PAY OF ENLISTED MEN.

Mr. ANTHONY. Why do you need \$5,000 to cover the additional pay of the enlisted men under the last proviso of section 24b? There is only an increase of \$500 in the case of the Artillery detachment, and \$5,000 in the Engineers' detachment.

Gen. MACARTHUR. Some of the Engineer detachment men have been disrated. There were more higher-rated men in the Engineer detachment than there were in the other, and their ratings have been correspondingly cut down more. For instance, if the Engineers had had 15 sergeants and they were cut down so that 7 of those sergeants became privates that would account for a certain amount.

Mr. ANTHONY. Let us see. Take the first sergeant of the Engineer detachment. He received \$51 as a first sergeant, too. Do you propose to give him \$53? That is the increase under the new classification?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. Your three staff sergeants receive \$51 and now you cut them down to \$45 when you give them the third grade. Is that the idea?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. Your 14 sergeants who received \$44 under their old classification will now receive \$45 when classified at the fourth grade. That is an increase?

Gen. MACARTHUR. Yes, sir; the supply sergeant was cut out entirely.

Mr. ANTHONY. Your 14 corporals who received \$36 will receive \$37 when qualified in the fifth grade. I fail to see where that comes.

Gen. MACARTHUR. The supply sergeant is cut out, and the three cooks are cut out and become privates. The privates go to \$

Mr. ANTHONY. Is there no provision in the Engineering organization for cooks?

Gen. MACARTHUR. Yes, sir; by War Department General Order No. 36, all cooks had to be reduced to the grade of private.

PAY OF SIGNAL CORPS DETACHMENT.

Mr. ANTHONY. Take up the Signal Corps. You cut out the master signal electrician because that grade no longer exists?

Col. TIMBERLAKE. That is the same as the master sergeant. The master signal electrician becomes a master sergeant and we have added one master sergeant.

Mr. ANTHONY. Why do you need a master sergeant?

Col. TIMBERLAKE. One of those is asked for by the Signal office of the department to take charge of the maintenance of the telephone system up there.

Mr. ANTHONY. Who has been maintaining it before?

Gen. MACARTHUR. The quartermaster heretofore, but the Signal Corps has taken it over, and they want their men to take care of and maintain it. We furnish the same operator. They are furnishing all the supplies now.

Mr. ANTHONY. The operators are enlisted men?

Gen. MACARTHUR. Yes, sir; this is a service detachment.

Mr. ANTHONY. That change of operation from the Quartermaster to the Signal Corps entails the employment of an additional master sergeant at \$74 a month?

Col. TIMBERLAKE. Yes, sir. We had a civilian there whom we were paying about \$125 a month, and in addition to taking care of the signal work, he was employed on the electric work all about the post.

Mr. ANTHONY. You still have him?

Col. TIMBERLAKE. Yes, sir; but that work has increased so that we will need additional men out of this lump sum to do that work.

Mr. ANTHONY. You propose to create one technical sergeant, second grade, \$53 per month. Whose place does he take?

Gen. MACARTHUR. There were two sergeants cut out a little while ago. He takes the place of one of these.

Mr. ANTHONY. You cut out two sergeants and one chauffeur and put in four, creating four new sergeants?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. Are those four new sergeants to do the work of the two sergeants and one chauffeur?

Gen. MACARTHUR. These two sergeants at \$44 will be replaced by those two sergeants at \$45 lower down.

Col. TIMBERLAKE. Yes; that is to correspond to the first sergeants now authorized. Two sergeants, fourth grade. This corresponds to two sergeants now authorized. Two sergeants, first class, \$51 each. Two sergeants, \$44, are omitted in the print; two sergeants, first class, \$51 each, are omitted in the print.

Mr. ANTHONY. Also, do you not provide for one specialist, second class, at this place, at \$80 a month, and designate him as chauffeur? Does he take the place of one chauffeur, at \$44 a month, that you cut out?

Col. TIMBERLAKE. Yes, sir; undoubtedly.

Mr. ANTHONY. That is the extra pay of his grade for a year.

Col. TIMBERLAKE. Yes, sir; \$96 per year.

Mr. ANTHONY. That is the extra pay of his grade in addition to that of private?

Col. TIMBERLAKE. Yes, sir; he is a chauffeur and had his pay reduced to that of a private.

Going back, there is one master electrician, one master-sergeant, and we ask for one additional master sergeant. There were two sergeants, first class, and two sergeants, and for those we ask for a technical sergeant, one staff sergeant, and two sergeants.

Mr. ANTHONY. You are increasing the number of privates from two to five?

Col. TIMBERLAKE. By one; because we have cut out two privates, at \$30 a month, and ask for five privates, first class, instead of two first class and two privates; so that there is an actual increase in the whole detachment of two men.

Mr. ANTHONY. What does the Signal Corps do up there, look after the electric wiring and telephones?

Col. TIMBERLAKE. They do very little of the maintenance about the post, maintaining and operating the telephone system.

Gen. MACARTHUR. We have introduced since the war, Mr. Chairman, the liaison systems that were approved by general headquarters. That involves the wiring connections to link up the units of a division. We have the telephone sets that are to connect everything from the division headquarters down to the line battalions at the front. We have all the wireless equipment that is involved. For instructional purposes this detachment runs the entire liaison system. This detachment has nothing to do with the general maintenance of the post except incidentally. It is entirely for the instruction of the Corps of Cadets.

Mr. ANTHONY. This increase that you are asking for of \$2,101, approximately, is taken up largely with the pay of the increased grades and two additional men?

Gen. MACARTHUR. Yes, sir.

PAY OF COAST ARTILLERY DETACHMENTS.

Mr. ANTHONY. Now, the Coast Artillery detachments.

Gen. MACARTHUR. There is an increase of nine privates in that detachment. The ordinary increases in money would be about \$1,080 due to increased pay. The nine privates bring that amount up to about \$4,500. As a matter of fact, the increase over the former appropriation is a little less than \$3,000.

Mr. ANTHONY. So you will provide one first sergeant, one master sergeant, first grade, one technical sergeant, second grade, and one staff sergeant, third grade.

Gen. MACARTHUR. Yes, sir; and we are cutting out one master electrician, one electrician sergeant, and one master gunner.

Mr. ANTHONY. In line 20, creation of nine specialists of the fifth class at \$8 per month additional pay each. That means \$8 a month in addition to their regular pay as privates?

Gen. MACARTHUR. Those are in place of four wagoners and five mechanics.

Mr. ANTHONY. Did they formerly get extra pay?

Gen. MACARTHUR. Yes, sir; they drew extra pay. They were \$36 a month men. Those men are now to get their base pay of \$36 plus the \$8 which goes with the specialists rating of the fifth class.

Mr. ANTHONY. If you want to cut down the total amount of money that is to be expended for the Coast Artillery detachment there, the only place where you could cut it down without destroying your organization would be in the number of privates.

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. In these additional grades, changes of grade that you have made, you will create no new officers?

Gen. MACARTHUR. No, sir.

Mr. ANTHONY. But you are trying to make the new designations conform to the old places.

Gen. MACARTHUR. Precisely.

Mr. ANTHONY. And this is the nearest you can come to it?

Gen. MACARTHUR. This is the nearest we can come to it.

Mr. ANTHONY. The extra pay to gunners is the same for Coast Artillery?

Gen. MACARTHUR. Yes, sir; the same in principle.

Mr. ANTHONY. How does it happen that you give to first-class gunners in the Coast Artillery \$3 extra pay a month and in Field Artillery \$5?

Col. TIMBERLAKE. There are three grades in field artillery, first-class gunners, first-class gunners, and second-class gunners.

They have never gotten in the Coast Artillery the expert first-class gunner. They have in the Coast Artillery plotters, observers, commanders and specialist ratings from \$7 to \$9 a month. You find an item of that kind here.

EXTRA PAY OF RATED MEN.

Mr. ANTHONY. You say for the additional pay of rated men two plotters where you formerly had one plotter?

Gen. MACARTHUR. That is an estimate of the number of men who will qualify.

Mr. ANTHONY. What is the one observer, second-class?

Gen. MACARTHUR. That is a rating according to the Coast Artillery organization. I think it carries \$5.

TRAVEL ALLOWANCE DUE ENLISTED MEN ON DISCHARGE

Mr. ANTHONY. Under the head of miscellaneous for travel allowance due enlisted men on discharge, you are asking for \$5,000 instead of \$3,000. What is the argument for that increase?

Col. TIMBERLAKE. That is bound to be more or less of a figure because it depends on where a man collects the travel pay. According to the law he can get it to his home or to his place of enlistment. Some of them, if their home is farther than the place of enlistment, will take from home.

Mr. DENT. They can not use it for any other purpose?

Gen. MACARTHUR. No, sir.

Mr. ANTHONY. How much did you use during the current year?

Col. TIMBERLAKE. I do not know. That is all-carried in the one basket, the pay of the Military Academy.

Gen. MACARTHUR. That is an estimate. It could do no great damage to cut it down?

Mr. ANTHONY. Have you any figures to show what it has cost you for one year?

Col. TIMBERLAKE. Yes, sir.

Mr. ANTHONY. Will you put them in the record?

Col. TIMBERLAKE. Yes, sir.

NOTE.—Fiscal year 1920, \$8,286.94.

Mr. ANTHONY. You have dropped out clothing due enlisted men on discharge because of the fact that the men have furnished their clothing?

Gen. MACARTHUR. Yes, sir.

INTEREST ON DEPOSITS DUE ENLISTED MEN.

Mr. ANTHONY. Interest on deposits due enlisted men, \$2,000. Do your men deposit their savings in a different fund than those of the Regular Army?

Col. TIMBERLAKE. No, sir.

Mr. ANTHONY. Where do they deposit that money? Is it carried up there or deposited here in the same way?

Col. TIMBERLAKE. We deposit it and turn it over to the War Department. It comes to the Treasury Department.

Mr. ANTHONY. What is the necessity for it. If those men are soldiers of the Regular Army organization why should not they utilize the same machinery that takes care of these deposits as the other men of the Army do?

Col. TIMBERLAKE. There is no reason why they should not.

Gen. MACARTHUR. None at all except that we have been employing that system a number of years.

Mr. ANTHONY. You pay them the interest directly up there?

Col. TIMBERLAKE. Yes, sir; pay it on discharge.

Mr. ANTHONY. They pay their deposits over to you?

Gen. MACARTHUR. Yes, sir.

Mr. DENT. It is just a matter of convenience?

Col. TIMBERLAKE. Yes, sir. It is solely to keep the operations of the military academy system separate from the Army.

Gen. MACARTHUR. For many years that was desired to show what the cost of the academy would be.

Mr. ANTHONY. This is the sum that is used for this purpose, during the current year?

Col. TIMBERLAKE. Yes, sir.

Mr. ANTHONY. The next item, pay of enlisted men, is cut out because you take it up now with new ratings?

Gen. MACARTHUR. Yes, sir.

EXTRA PAY OF WARRANT OFFICER AND SERGEANTS.

Mr. ANTHONY. There is new language for the pay of one warrant officer to be on duty at the headquarters, corps of cadets, \$1,320, at the bottom of page 20.

Gen. MACARTHUR. In regard to this and the next item for two staff sergeants to be on duty in the headquarters, United States Corps of Cadets, I would like to read this note into the record.

Mr. ANTHONY. All of the sergeants mentioned in this new language here on pages 20 and 21 are to be on duty in the headquarters, corps of cadets?

Gen. MACARTHUR. No, sir; the first two only.

Mr. ANTHONY. They are all new officers, are they?

Gen. MACARTHUR. The majority of them are. They are to replace civilians largely. Those on page 21 are not new.

Mr. ANTHONY. Take them up individually.

Gen. MACARTHUR (reading):

The warrant officer is desired to take the place of the regimental sergeant major in the office of the commandant. It is extremely desirable that the head or chief clerk in the office of the commandant be as permanent as possible, inasmuch as the personnel of the department, including the commandant himself, is continually shifting. This item is asked for with the idea of being able to secure and hold a reliable, competent man. The present sergeant major was an officer during the war and qualified for warrant officer grade. During the past year great difficulty has been experienced in finding and keeping sufficient clerical assistants in the office of the commandant. Throughout the year the commandant's work has been continually handicapped because of the shortage of clerical help. The following organization of clerks in the commandant's office is deemed essential:

In charge of files and records, one warrant officer technical division; one battalion sergeant major in charge; one enlisted clerk; one civilian clerk; correspondence division, one civilian clerk; instruction division, one battalion sergeant major in charge, one civilian clerk, and two enlisted clerks.

Estimates submitted are for this organization.

The first item is to provide the pay of one warrant officer to be on duty in the headquarters of the United States Corps of Cadets to replace a regimental sergeant major.

Mr. ANTHONY. Is the man now on duty at regimental headquarters a sergeant major of the Regular Army?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. What pay does he draw per year?

Gen. MACARTHUR. About \$1,000 per year, I think.

Mr. ANTHONY. So you are really proposing to give him an increase in pay of \$320?

Gen. MACARTHUR. Yes, sir; but he gets no clothing or travel allowance.

Mr. ANTHONY. Would not this man be eligible to appointment as a warrant officer under the general language of the reorganization act?

Gen. MACARTHUR. Yes, sir. But we could not get him without a distribution of warrant officers by the War Department to provide for warrant officers at West Point. He is not only eligible, but I think that he probably would become a warrant officer. I think if we do not give him this inducement he will leave.

Mr. ANTHONY. That is to replace sergeants to be on duty in the headquarters at \$45 a month. Are they newly created officers?

Gen. MACARTHUR. Those are new items; yes, sir.

Mr. ANTHONY. They are needed?

Gen. MACARTHUR. Yes, sir. The commandant of the cadets has been continually behind in his work and has had to use major assistants and to use some of his commissioned officers to assist in the clerical work.

Mr. ANTHONY. For pay of one master sergeant, first grade, \$1,685.29. Is that a newly created officer?

Col. TIMBERLAKE. No, sir; it takes the place of a sergeant, senior grade, of last year.

Mr. DENT. It is a mere change of name, a change of title?

Mr. ANTHONY. You propose to promote him to the grade of sergeant, senior grade?

Gen. MACARTHUR. He gets \$74 base pay. This \$1,685 includes his base pay and his increased pay for service, and the increase of 20 per cent under the act of May 18, with rations.

Mr. ANTHONY. So that a master sergeant gets more pay than a warrant officer now?

Gen. MACARTHUR. Yes, sir. His base pay is \$888. His pay for length of service is \$355.20 and his 20 per cent additional under the act of May 18 is \$248.64.

Mr. ANTHONY. That is all there is of that?

Gen. MACARTHUR. Yes, sir. The ration of 53 cents amounts to \$193.45.

Mr. ANTHONY. Take this view: If we provide for pay of one master sergeant, first grade, of \$1,685.29 per year and you remove the present man and send him to some other duty, you can put some new man in there at this grade of pay?

Col. TIMBERLAKE. You can put him in there at that grade, but he would not get paid for length of service.

Mr. ANTHONY. He could if we fixed it by law.

Gen. MACARTHUR. I think the chairman is right. If you fix his pay without itemizing it, any incumbent would draw the full sum. Would he not?

Col. TIMBERLAKE. I have the estimate on which that \$1,685 is based.

Gen. MACARTHUR. If you had an incumbent not entitled to longevity pay, would he still get that?

Col. TIMBERLAKE. I would never pay him that because the comptroller would not let it go by.

Mr. ANTHONY. What is the actual increase in money you will be giving this man?

Col. TIMBERLAKE. No increase. In fact, there would be \$12 a year less, because his base pay is \$1 a month less.

Mr. ANTHONY. Under that section you just quoted, where no man's pay shall be reduced below that he is now receiving, you have to make that up?

Col. TIMBERLAKE. Until he reenlists.

Gen. MACARTHUR. If you wanted to make this absolutely clear, it should be composed as follows: Pay of one master sergeant, first grade, \$888; add a second item, pay for increased length of service, \$355.20; add a third item for 20 per cent additional pay under the act of May 18, or \$284.68; and a fourth item for rations, \$193.45.

Col. TIMBERLAKE. I expect it would be better to itemize that, because that additional pay is only for the next fiscal year. Itemized as follows:

Old: For pay of one master sergeant (quartermaster sergeant, senior grade). \$888. 00

NOTE.—Prior to the passage of the reorganization act for the more effectual defense of the Nation, this item appeared as follows "Pay of one sergeant, senior grade, \$900." This change is made in accordance with act approved June 4, 1920.

New:

Increased pay for length of service, master sergeant.....
 Increase of 20 per cent in pay in accordance with act of Congress approved May 18, 1920.....
 Additional ration.....

Total.....

Mr. ANTHONY. There is a master sergeant in line 6.

Gen. MACARTHUR. Similar case, total pay \$1,525.45, itemized follows:

Old: For pay of one master sergeant (regimental sergeant major, Infantry). \$...

NOTE.—The increase in pay and the change in rank is necessary in order to comply with the act of June 4, 1920, reorganizing the Army.

New:

Increased pay for length of service, master sergeant.....
 Increase of 20 per cent in pay in accordance with act of Congress approved May 18, 1920.....
 Additional ration.....

Total.....

Mr. ANTHONY. That is an increase of grade over the present grade.

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. How about the next man? Is that a new man for a new man?

Gen. MACARTHUR. One master sergeant.

Col. TIMBERLAKE. First grade, office of the quartermaster would like to cut that out.

Gen. MACARTHUR. This has already been done.

Col. TIMBERLAKE. That can be cut out.

Mr. ANTHONY. For pay of one staff sergeant, third grade, provided that the noncommissioned officer on duty under the provision of the personnel adjutant shall have the rank, pay, and allowances of that grade while performing the duty as clerk of personnel adjutant, and if performing such duties at date he is eligible for retirement to be retired at that grade.

Gen. MACARTHUR. That is a sergeant who has been up many years, a very excellent man, and it amounts to an increasing rating.

Mr. ANTHONY. From what?

Gen. MACARTHUR. His itemized pay would be as follows:

New:

For pay of one staff sergeant (third grade) (battalion sergeant major, Infantry).....
 Increased pay for length of service.....
 Increase of 20 per cent in pay in accordance with act of Congress approved May 18, 1920.....
 Additional ration.....

Total.....

Mr. ANTHONY. Why this additional language? If he is an old man in the regular service, he would be entitled to retirement. We are specifying here that he must be retired with that grade. Would not the War Department have the option of retiring him at any time they choose? That is, could not he be promoted to a certain grade and retired? We would be fixing his retirement grade here in advance of, probably, the date he will be retired unless he immediately retire. Is he eligible to retirement now?

Mr. DENT. He has been there 20 years.

Gen. MACARTHUR. He is nearly so. He is not eligible now. I see no reason why that should be included.

Mr. ANTHONY. For pay of one master sergeant, first grade, \$1,525.45. That provides that the master sergeant, monotype operator employed in the printing office at headquarters, Military Academy, have the pay, rank, and allowances of a master sergeant. Itemized as follows:

New:

For pay of one master sergeant (first grade).....	\$888. 00
Increased pay for length of service, master sergeant.....	266. 40
Increase of 20 per cent in pay in accordance with act of Congress approved May 18, 1920.....	177. 60
Additional ration.....	193. 45

Total.....	1, 525. 45
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Provided, That the sergeant monotype operator employed in the printing office at headquarters, United States Military Academy, have the rank, pay, and allowances of a master sergeant.

Gen. MACARTHUR. This was put in at the special request of the adjutant.

Mr. ANTHONY. Is the master sergeant your linotype operator, or monotype operator?

Gen. MACARTHUR. He is now; yes, sir. This sergeant monotype operator is an expert printer, expert linotype operator in the service of the academy.

Mr. ANTHONY. What does he get now in the pay of his grade?

Gen. MACARTHUR. The adjutant told me that he was quite a remarkable man, that he had saved 30 minutes every day in the operation of the printing presses by a device that heated up the presses before the men got there.

Mr. ANTHONY. What pay does he get now as a sergeant linotype operator?

Col. TIMBERLAKE. He gets \$45 a month plus length of service and 20 per cent. He now belongs to the service detachment.

Mr. ANTHONY. Put in the record the actual pay he gets and the value of his allowances.

Pay.....	\$810. 00
Ration (depending on value of) about ration.....	190. 00
Clothing (depending on how much) about is issued to him.....	85. 00

Col. TIMBERLAKE. As the superintendent said, he rigged up a device that turns on the gas to the monotype machine making it ready half an hour before the office opens, to heat his lead type metal before he gets there and when he gets there the machine is available. From Maj. Smith's work in liaison with the Committee on Printing and Binding of the Senate and House, who was ordered to go around and inspect those different printing plants belonging to the Army, he was very much surprised and pleasantly surprised at the plant up there in the way this sergeant was taking every advantage of his time and means to advance things. He said "This is something that in a regular printing plant, I have not run across yet."

Mr. ANTHONY. What is the total of the estimates under this heading for the next fiscal year?

Col. TIMBERLAKE. It is \$10,123.19.

Mr. ANTHONY. That is apparently \$9,000 less than the current year's appropriation?

Col. TIMBERLAKE. Yes, sir.

Mr. ANTHONY. How do you account for that?

Col. TIMBERLAKE. Cut out the extra pay and cut out the original items, which are included in the Artillery and Cavalry detachments.

Mr. DENT. You did not cut it out. You just transferred it?

Gen. MACARTHUR. Transferred it; yes.

Mr. ANTHONY. This is proposed new legislation. The pay of these men here does not figure in these totals here?

Gen. MACARTHUR. No, sir.

PAY OF CIVILIANS.

(See pp. 1266, 1269.)

INCREASES IN SALARIES—ADDITIONAL EMPLOYEES.

Mr. ANTHONY. Pay of civilians. Perhaps we can understand this a little better. Pay of one teacher of music, \$2,000. No charge in that?

Gen. MACARTHUR. No change.

Mr. ANTHONY. You have the present teacher of music receiving that pay?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. That is the pay of a second lieutenant, not mounted.

Gen. MACARTHUR. Pay of a first lieutenant, not mounted. He is a first lieutenant.

Mr. ANTHONY. Who does this teacher instruct?

Gen. MACARTHUR. The band, sir.

Mr. ANTHONY. Do you need a teacher of music in the band in addition to a band leader?

Gen. MACARTHUR. The band leader, of course, attends to the discipline very largely. The teacher of music is a technical man.

Mr. ANTHONY. I always thought a band leader had to instruct the men, too. He does, in an ordinary town band.

Gen. MACARTHUR. Yes, sir; in an ordinary town band he does.

Mr. ANTHONY. Pay of nine clerks in the office of the quartermaster. You are proposing to increase the pay of the chief clerk from \$1,440 to \$2,400?

Gen. MACARTHUR. All these increases in the clerical force were recommended by a board of officers that investigated the pay of clerks at the Military Academy. The increases were recommended with the idea of putting the clerks at the academy on the same footing as the other clerks doing similar duties throughout the Army. There had been no increase in their pay in most cases for 20 years, and the reclassification of clerks throughout the Government which was recently undertaken did not include the West Point system.

Mr. ANTHONY. In line 10 you provide three new clerks, at \$2,400 each. In line 11 three clerks, at \$1,440 each. Are those additional clerks?

Gen. MACARTHUR. Those are not additional.

Mr. ANTHONY. What is the necessity? They take the place of the five clerks that are dropped out?

Mr. CRAMTON. About double the appropriation.

Col. TIMBERLAKE. The same number of clerks as last year; no increase in the number. They are arranged differently and given increased pay. Pay of the nine clerks increased from \$12,100 to \$15,120—average increase per clerk approximately \$335 per year.

Mr. ANTHONY. In the next line you propose two clerks and stenographers at \$1,200 each, instead of three at \$1,200 each. Do you propose to take one of those clerks and promote him? Suppose you provide for six instead of five, and here you cut down. Pay of one expert architectural draftsman in the office of constructing quartermaster. Is that a new officer created?

Col. TIMBERLAKE. That is a new officer, and it is necessary for this construction that is going on to have expert architectural draftsmen to go over the plans and specifications.

Mr. ANTHONY. Who is doing that work now?

Col. TIMBERLAKE. We are doing it out of the appropriations for the buildings. For each building they have to employ a man; sometimes it takes six months to get a man. We have to do it through the civil-service regulations.

Mr. ANTHONY. What does it cost per year to do it in that way?

Col. TIMBERLAKE. \$50 a week.

Mr. ANTHONY. Is there enough work there to keep an architectural draftsman busy?

Col. TIMBERLAKE. Yes, sir.

Mr. ANTHONY. What new construction is going on at West Point now?

Col. TIMBERLAKE. Building a bachelors' building and an addition to the Artillery stables.

Mr. ANTHONY. Bachelor officers' quarters?

Col. TIMBERLAKE. An addition to the Artillery stables, dry cleaning plant, new barracks going on now, and new hospital.

Mr. ANTHONY. New cadet barracks?

Col. TIMBERLAKE. Yes, sir.

Mr. ANTHONY. And a new hospital?

Col. TIMBERLAKE. We have not started the hospital because we have not enough money. We took that up with the other committee yesterday.

Mr. ANTHONY. Have you got to utilize any officers of the construction service up at West Point?

Col. TIMBERLAKE. No, sir.

Mr. ANTHONY. What work up there is being done through those forces?

Col. TIMBERLAKE. Through my own forces?

Mr. ANTHONY. Would there be any men in the construction service of the Quartermaster's Department that could do this class of work?

Col. TIMBERLAKE. If he could do it, it would be almost impossible to make him do it; no, sir. I do not know of anybody that could. Drafting is mighty peculiar work unless a man is constantly at it.

Mr. ANTHONY. You pay an architect to furnish the plans?

Col. TIMBERLAKE. Yes, sir.

Mr. ANTHONY. These men you want—you hire a man to interpret the plans?

Col. TIMBERLAKE. Not only that, but we want to make modifications and architects are in New York, and we want those architects to outline our modifications.

Mr. ANTHONY. What commissions do the architects get?

Col. TIMBERLAKE. Five per cent.

Mr. ANTHONY. For merely furnishing the plans?

Col. TIMBERLAKE. Plans and specifications.

Mr. ANTHONY. Do they supervise the work?

Col. TIMBERLAKE. No, sir; they will not supervise the work for less than 6 per cent.

Gen. MACARTHUR. I believe there are undoubtedly officers of the construction division that could do this, but I do not think that we could get one of them ordered there to do it.

Mr. CRAMTON. If you will get a man for occasional work at \$50 a week, would not \$2,500 a year be enough?

Col. TIMBERLAKE. As I just started to tell you, I had to hunt six months to find that man. We had the names through civil-service regulations and got eligible lists of these men and write to them whether they will accept it or not.

Mr. CRAMTON. All that involves the question of having a permanent man instead of a temporary man. Coming back to the question getting a man at \$50 a week you are hiring a man at a salary \$2,500 to take care of that.

Col. TIMBERLAKE. We could probably get a man for \$2,500 a year, whether he would be an expert architectural draftsman I have no doubts.

Mr. CRAMTON. The man you get for \$50 a week would have salary a year for \$2,500?

Col. TIMBERLAKE. I do not think so.

Mr. CRAMTON. Why?

Col. TIMBERLAKE. Because the men we get in New York come there from the Middle West.

Mr. CRAMTON. They came in between jobs?

Col. TIMBERLAKE. He will find out what he can get in New York and in the middle of the work down there he will go. We had a man there we were paying \$60 a week and he went down to an architectural office down there in New York and he is getting \$65 a week and his commutation from his home into New York City. That is the trouble with men of that kind. They are sought after and they leave you right at the time when you need them worst. Not has this man delayed the plans of the dry cleaning plant three or four months, and I am doing that myself. We did not employ an architect but I am doing it myself, and we want a man there that is capable of taking charge of a thing of that kind and carrying it through. It took me three or four months to get that man through civil-service channels and he will probably stay with us until we get this thing done. I do not feel sure that he will be there for six months.

Mr. ANTHONY. Would it be possible for the construction force of the Army to take care of the construction at West Point?

Col. TIMBERLAKE. No, sir; not without increasing the construction force.

Mr. ANTHONY. The Army will do very little reconstruction at West Point during the next year, but we have got to maintain a force of men, a large number of officers and a large number of enlisted men.

Col. TIMBERLAKE. We have tried to get them to send an engineer up there for six months to lay out the construction of drains there and to modify the sewer line. We put in an estimate of \$100,000 to extend sewers out into the river, and it got down to West

and was referred to the construction branch. They sent a man up there to look over the ground and he wants to modify the whole thing and put in a septic tank and a purifying system, because he says the State laws will require that to be done sooner or later, and that has been going on for seven or eight months and we have not got an engineer up there yet.

Mr. ANTHONY. This is an engineer from the construction service?

Col. TIMBERLAKE. Yes, sir; and we have not got a man up there yet to take that up and lay it out. Also, we asked for a road engineer to go up there and lay out a road that we put in estimates for.

Mr. ANTHONY. That is because they have no responsibility for that work now under the law.

Col. TIMBERLAKE. They feel that they have. That is why they want to modify this. We have a sewer that runs out into the river outside under the railroad track there. The sand comes there, deposits, and blocks that up.

We want to extend this line out 100 feet or more into the river on piles, and they thought that the State was going to require them to purify sewerage, and not empty a lot of raw sewerage into the river and they have taken it up on a basis of remodeling the whole work.

Mr. ANTHONY. Do all the cities along the Hudson River empty their sewers into the Hudson?

Col. TIMBERLAKE. No, sir; I think the larger cities are required to purify it before it enters into the river.

Mr. ANTHONY. In the smaller towns it all goes directly into the river.

Col. TIMBERLAKE. Empties right into the river.

Mr. ANTHONY. For pay of the 12 clerks and stenographers employed at headquarters, United States Military Academy. You are increasing the number of clerks in this new language.

Gen. MACARTHUR. Not the number, but increasing the recompense.

Mr. ANTHONY. They changed from grades to miscellaneous?

Gen. MACARTHUR. Yes, sir.

Col. TIMBERLAKE. Let me go back a moment. If there is not going to be any construction authorized this year, probably we will not need that architectural draftsman so badly. We hope that we are going to get some construction.

Mr. ANTHONY. We will see at the end of the bill how strong you go.

BUILDINGS AND GROUNDS.

CONTINUANCE OF CONSTRUCTION.

Gen. MACARTHUR. While we are on the subject of construction I would like to skip to the end of the bill and take it up.

Mr. ANTHONY. All right. What page is that on?

Gen. MACARTHUR. Page 46, the last paragraph.

To provide the necessary buildings and other improvements to accommodate and care for the increase in the Corps of Cadets at the United States Military Academy provided by the act of Congress approved May 4, 1916.

There was a general building scheme with which you are probably familiar, approved May 4, 1916, which was designed to complete West Point for the number of cadets which were authorized at that time, 1,334. The scheme was approved, and in piecemeal it is being

translated into actual construction. It still lacks nearly \$5,000,000 of construction for completion.

This bill was originally drawn to double the size of the Corps of Cadets to be provided in four annual increments with the necessary additional construction thereby entailed, amounting to about \$7,000,000. This bill has been changed by omitting the recommendation about an increased Corps of Cadets, so that these two paragraphs instead of asking for \$3,000,000 for this year and the same for the next four years, should be radically modified. I ask for enough to continue the project that was approved in 1916, an appropriation of \$500,000 only.

Mr. ANTHONY. For the present year and for the next year?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. There would be only \$500,000 for new construction in this bill?

Gen. MACARTHUR. Yes, sir; and in order to intelligently operate we would like to have an authorization to continue this building plan to an ultimate cost not to exceed the estimate that was made in 1916—something less than \$5,000,000.

MESS HALL.

Mr. ANTHONY. What buildings are there that still remain to be constructed in accordance with this plan?

Gen. MACARTHUR. The most important one is the mess hall. Have you been up to West Point?

Mr. ANTHONY. I have not been there for three or four years.

Gen. MACARTHUR. It is the new mess hall; it is to be located between the north and south barracks and replaces the wreck of the old gymnasium and the old cadet store. The building is designed to replace the present mess hall, which is entirely inadequate in every way. In addition, on its second floor it will have the cadet store and all its appurtenances. On the third floor will be a drawing academy with glass roof, large enough to accommodate the entire corps class and thereby relieve the pressure now on the two academy buildings for drawing rooms.

Mr. ANTHONY. And this \$500,000 would be used entirely for construction of that building?

Gen. MACARTHUR. I would not say that; that is about enough for the drawing up of the plans and the preliminary work.

Mr. ANTHONY. What is the estimated cost?

Gen. MACARTHUR. That building is estimated at \$1,600,000.

Mr. ANTHONY. Yes, \$500,000 would just start the work.

Col. TIMBERLAKE. It would allow us to do the excavation, possibly and draw the plans, start quarrying of stone and so on. Together with the appropriation of this \$500,000, we would like authorization to contract for work amounting to about \$4,800,000.

Gen. MACARTHUR. Unless such an authorization is to be given, I do not think it would be advisable to make the appropriation of \$500,000. I think the whole scheme should be settled as a unit and not have the Government compromised by piecemeal appropriations.

Mr. ANTHONY. This new building is to be used as a mess hall?

Gen. MACARTHUR. Yes.

Mr. ANTHONY. And as a store?

Gen. MACARTHUR. Yes.

Mr. ANTHONY. And as a drawing academy?

Gen. MACARTHUR. Yes.

Mr. ANTHONY. Under present conditions can you seat the full force of cadets at one sitting in your present mess hall?

Gen. MACARTHUR. Yes, sir; but it makes things very crowded and the service poor. The old kitchen, as you know, is now used as a part of the mess hall proper, and we have built on an addition for a kitchen. It is not a delectable place, though we did the best we could with it. We would have great difficulty in seating the full authorized strength of 1,334. I think we probably would have to eat in two relays.

COMPLETION OF BUILDINGS NOW UNDER CONSTRUCTION.

Mr. ANTHONY. Have you got money enough to build the buildings that are now under construction?

Gen. MACARTHUR. We have money enough to build the buildings now under construction, except the hospital. The estimate for the hospital was something like \$400,000 and the bids that were submitted were several hundred thousand dollars in excess of that, so I did not permit ground to be broken. I put that situation before the committee, through Col. Timberlake, yesterday.

Mr. ANTHONY. What committee was that before?

Gen. MACARTHUR. The General Deficiency Committee. We have not started that work.

Mr. ANTHONY. Do you think it would be advisable to carry the present work that is now under way through to completion before you undertake anything new?

Gen. MACARTHUR. Well, sir, we will have it completed at the commencement of the new fiscal year with the exception of the hospital, which has not been started; I think we will have everything completed.

Col. TIMBERLAKE. Yes, sir.

Gen. MACARTHUR. We expect to occupy the new barracks next September, and the new bachelor building by July.

Mr. ANTHONY. You say this building program was started in 1916?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. But you can only proceed with it as the money is specifically appropriated?

Gen. MACARTHUR. Exactly.

Mr. ANTHONY. For the separate buildings?

Gen. MACARTHUR. Exactly; and in the completion of this program, if Congress is not going to approve it as a unit so it can be handled efficiently, I think it would be advisable to take one item alone and handle that.

Mr. CRAMTON. How large is the contract that you would suggest being permitted to make at this time with an appropriation of \$500,000?

Gen. MACARTHUR. I would like to have the original plan re-approved.

Mr. CRAMTON. Some \$4,000,000?

Gen. MACARTHUR. Yes, sir.

Mr. CRAMTON. What do you think about the advisability under present price conditions making a contract for \$4,000,000 with only \$500,000 for use in the next year?

Gen. MACARTHUR. I do not quite understand your question, sir.

Mr. CRAMTON. What do you think about the advisability of making a \$4,000,000 contract when you have at hand only \$500,000 for use in the next year; is it not possible that you will have to pay a very high price?

Gen. MACARTHUR. I do not think it would be advisable to enter into contracts for all this now with prices high.

Mr. CRAMTON. That is what I am asking you.

Gen. MACARTHUR. But I would draw plans and I would get up specifications. That itself would cost nearly half a million dollars.

Mr. CRAMTON. You would not contract for much more than your money would take care of in the year?

Gen. MACARTHUR. No, sir.

Mr. CRAMTON. That is what I wanted to get at.

Gen. MACARTHUR. No, sir; it would not be advisable, as I said, to make this appropriation of \$500,000 unless you are going to do it for this specific plan.

Mr. CRAMTON. I understand.

Gen. MACARTHUR. Because, of course, the drawing of plans and specifications must be preliminary to actual construction.

Mr. CRAMTON. I understand now, General.

Gen. MACARTHUR. This would only cover the general scheme and perhaps the excavation for the mess building.

Col. TIMBERLAKE. And the excavation is not done by contract. I do that by purchasing the material and hiring labor myself and doing it while the plans and specifications are being drawn.

Mr. CRAMTON. I was under the impression that you intended to award that \$4,000,000 contract on work that would not be done for several years.

Col. TIMBERLAKE. It would be a year before a start could be made under any contract.

Mr. ANTHONY. You would like to have this half million dollars appropriated to take care of the plans and specifications and for the excavating?

Col. TIMBERLAKE. Yes; it will probably take care of the excavation and drawing of plans for the building, but in the authorization that would be passed I would be empowered to contract for building up to the amount of \$4,000,000.

Mr. ANTHONY. On what date do you think available labor in the vicinity would be free from other construction work that is now being done?

Col. TIMBERLAKE. The 1st of July; in fact, there is all kinds of common labor right around there now.

Mr. ANTHONY. Have you noticed any decline in the price of labor?

Gen. MACARTHUR. Wages are coming down.

Col. TIMBERLAKE. It will come down.

Gen. MACARTHUR. I figure in about a year we will be able to get contracts at something that is reasonable.

Mr. ANTHONY. Do you think it would be a year before you could do this?

Col. TIMBERLAKE. I do not think we could have plans ready before a year, sir; we could not possibly let it before a year because, in this hospital case, I started that really before the money became available. I got the Secretary of War to approve the architect on the 1st of June and the money was not available until the 30th of June, so I had the architect going over all the grounds before the money was available, and it took him a year and over to get his plans drawn for the hospital.

Mr. DENT. Why do you want an authorization now empowering you to contract for the whole proposition if it will be a year before you are ready to let the contract?

Col. TIMBERLAKE. Because you have to pay the architects as they are drawing plans proportionately as the work is done; not only that, but I can do the excavation for this building during that time.

Gen. MACARTHUR. There is no direct reason, Mr. Dent—to answer your question—there is no reason why that should be done except the security of the \$500,000, because a committee next year might not wish to proceed with the project and the \$500,000 would be lost.

Mr. DENT. You want Congress committed to the proposition of carrying this scheme through?

Gen. MACARTHUR. Yes, sir; I do not think they ought to make an appropriation of \$500,000 alone without committing themselves to the entire project; I think the question ought to be decided by Congress and, if the decision be favorable, that authorization for its completion given, so that a succeeding Congress unfamiliar with it would not waste, perhaps, all the money that had been spent by the preceding Congress in its appropriation for this preliminary work.

Mr. CRAMTON. And it is not a question of being authorized to contract, but an authorization for the project?

Gen. MACARTHUR. Exactly.

Mr. CRAMTON. Committing Congress to it.

Gen. MACARTHUR. And, if you wanted to, you could limit that and let me contract for one building, say the mess hall.

Col. TIMBERLAKE. Here is a point that I would like to explain: That I can not contract for any building under present authority unless the appropriation for that building has been made; it is against the law.

Gen. MACARTHUR. How is that?

Col. TIMBERLAKE. You are prohibited from contracting for any building work unless the appropriations for that building have been made, unless it is specially authorized by Congress.

Gen. MACARTHUR. Yes, but Congress can authorize it.

Col. TIMBERLAKE. That is why I say I want authorization to contract for buildings up to this amount.

Mr. ANTHONY. Of the remaining building program at West Point, the construction of the mess hall is the most important.

Gen. MACARTHUR. By long odds, sir.

Mr. ANTHONY. That represents the most pressing need.

Gen. MACARTHUR. By long odds, sir.

Mr. ANTHONY. And you will submit just the language that you need to accomplish what you have in mind?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. Not to go any further into the building end of it?

Gen. MACARTHUR. No, sir.

PAY OF CIVILIANS.

(See pp. 1258, 1269.)

Mr. ANTHONY. What page were we on?

Mr. DENT. We were on page 22.

Col. TIMBERLAKE. We were on page 22; the middle of the page.

Mr. ANTHONY. You said you were not increasing the number of clerks to be employed on salary?

Gen. MACARTHUR. No, sir.

Mr. ANTHONY. But are merely rearranging that and giving increases in salaries?

Gen. MACARTHUR. That is in accordance with the recommendation of the board.

Mr. ANTHONY. Now, we get down to pay of two civilian instructors in French. You are asking for an increase for each of them of \$500.

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. Does the recommendation of the board cover them, too?

Gen. MACARTHUR. No, sir. I have a note here that says that civilian instructors were first employed in the department of modern languages in 1904, when two were authorized in French and two in Spanish. The act creating the position also fixed the pay therefor at \$2,000 per year. There has since been no increase in this amount except that the act of March 4, 1919, provided that "these civilian instructors employed in the department of modern languages * * * shall be entitled to public quarters and to the same allowances with respect to fuel and light as those of a first lieutenant when keeping public quarters."

The professor of the department of French and Spanish is very anxious that these men, several of whom are officers in the French service, reserve French service, get the commensurate rate of pay that officers of the same rank do in the United States Army.

Mr. ANTHONY. The same recommendation applies to the increase you propose for the instructors in Spanish?

Gen. MACARTHUR. Yes, sir; exactly.

Mr. ANTHONY. You ask for creation—

Gen. MACARTHUR. Of civilian instructor in dancing!

Mr. ANTHONY. Yes.

Gen. MACARTHUR. At present we have a civilian instructor in dancing. The cadets pay him from their own salaries.

Mr. ANTHONY. Do you require all the cadets to take dancing lessons?

Gen. MACARTHUR. Yes, sir; they are all required to qualify. We deduct a proportional part from their pay.

Mr. ANTHONY. How much does a cadet have to pay to take the required course in dancing?

Gen. MACARTHUR. I will have to figure that out. We paid the instructor last year about \$3,500, and we had about a thousand cadets, so the rate was about \$3.50 per cadet.

Mr. ANTHONY. Was one man able to instruct the entire corps?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. He has the entire new classes?

Gen. MACARTHUR. He starts with the plebe class and the men drop out as they qualify; they have to continue their course of instruction until they qualify.

Mr. ANTHONY. What is the object in instructing them in dancing?

Gen. MACARTHUR. Well, sir——

Mr. ANTHONY. Is it to make them more graceful and to give them greater ability in handling themselves?

Gen. MACARTHUR. Yes, sir; it is regarded as one of the accomplishments that no man should fail to possess. Of course, many of these men danced before they came there. Unfortunately many of them danced in a very wrong way. Especially with the new dances we have a great deal of difficulty in breaking up bad habits, more so than we did in the days when I was a cadet. Dancing teaches them good manners and good deportment.

Mr. ANTHONY. What if you get hold of a boy who came from a good Methodist family who would object to dancing?

Gen. MACARTHUR. Well, sir; we have never found him yet. The ladies in the garrison assist in this work; they go over and dance with the fourth class men. This instructor not only teaches them dancing, but he supervises the hops, so that there are no immodest incidents permitted on the floor. He has been there a long while. He is a very excellent man.

Mr. ANTHONY. General, do you have any line of demarkation between classes of the cadets that are allowed to attend dances at the academy?

Gen. MACARTHUR. Yes, sir; we do. The first three classes are permitted to attend all dances; the fourth class is not permitted to attend dances through their fourth-class year except during Christmas week. During Christmas week they have three hops; at those hops the upper three classes are not permitted to attend.

Mr. ANTHONY. What is the purpose of that rule?

Gen. MACARTHUR. It is to assist in the inculcation of proper subordination and discipline.

Mr. ANTHONY. You propose to increase the pay of the two expert civilian instructors in fencing each \$500 per year?

Gen. MACARTHUR. Yes, sir; and I would like to read this note into the record; at present there are four civilian instructors employed in the physical training of cadets; two of these had their pay increased from \$1,500 to \$2,000 several years ago. As all have equal responsibilities and duties and as the instruction they impart is of equal importance, such discrimination is unjust. With a constantly increasing corps of cadets their duties will require more time and their pay should be such as to make it possible to hold them here throughout the year. This increase is most earnestly urged not only on account of the fact that it is necessary on account of the increased cost of living but because it has been deservedly earned. Both men are of exceptional type and ability.

HAZING.

Mr. ANTHONY. While we are on the subject, are you having any trouble with hazing at West Point?

Gen. MACARTHUR. No, sir; none whatsoever.

Mr. ANTHONY. Has it all disappeared?

Gen. MACARTHUR. It has practically disappeared, sir. The reasons that the cadet corps had for believing in hazing were based upon the type of discipline which in the old Army of 100 years ago was very necessary. Armies at that time were recruited from the most difficult classes of society; many of them were the outpourings from the jails for petty offenses; practically all soldiers of two or three generations ago were desperate men who were commanded by professional officers who had to have a very iron form of discipline to break them into being a flexible weapon for use on the field of battle. As a result disciplinary methods in the regular armies were rough.

In the last 100 years more and more has the type of enlisted man been changed from the type of bravado and adventurer to the type of the ordinary working man. Discipline has, therefore, been undergoing a great revision and change. The World War demonstrated absolutely and thoroughly that you did not need the fear of punishment to make men do what you wanted them to do; they only had to be told what to do and in the majority of cases they would do it. An entirely different psychology of command is therefore now necessary on the part of the Army officer.

The West Point cadet had clung to the methods of hazing as a means for and as a reflex of the severe discipline which had been instilled and maintained in Regular Armies. It has been explained since the war that the reason for hazing has entirely disappeared; that the type of Army officer has changed. He had maintained the hazing system not because he liked it but because he felt that it was necessary; it had been ringing in his ears for years that it was necessary to maintain that system in order to maintain the disciplinary systems of the Regular Army. Since he had been informed that the disciplinary systems of the Regular Army no longer require of that sort of thing he has been generally very delighted. I can assure you, to drop the tragedy and to adopt a more rational method of discipline.

No harsh means have been used to suppress hazing, but these means have been advised; their responsibilities have been explained to them; and they have of their own volition stopped the manifestation of hazing with which we were all so familiar in previous days. I have had practically no trouble at all, sir.

Mr. ANTHONY. Do any upper classmen attempt to maintain a disagreeable attitude toward new cadets?

Gen. MACARTHUR. No, sir; the attitude of the upper-class man is one of aloofness. By regulation we do not regard the cadet of the fourth class in the same light as an upper-class man. He goes through his first year of training as a novice. The attitude of the upper-classmen is that of the aloofness of a superior officer.

Mr. ANTHONY. The reason I asked that question is because I had just had the experience of appointing two boys to the Naval Academy who were successful in their examinations. They stayed there for five months and gave as the reason for their resignations that...

upper classmen had made life there so intensely disagreeable to them that they did not care to stay there any longer.

Gen. MACARTHUR. I would like to have you talk with our fourth class. You will find that there has not been in this last year, I think, a single resignation due to the treatment of upper classmen. Of course, with a thousand men, I suppose there may be sporadic cases that escape observation; but generally they would be handled by the classes themselves, because the spirit which I have just enunciated is absolutely in the corps of cadets at the present time. The hazing that has existed in the past in spite of its brutal manifestations found its support in one of the greatest of virtues, a sense of loyalty to an institution and to a principle. This sense of loyalty is now arrayed against it.

Mr. CRAMTON. I want to ask the general a question to get a little clearer in my mind to what extent this aloofness extends. If I have a first-class man from my district at the academy in whom I have confidence and send a new boy in, is it anything in conflict with the customs or practices or discipline of the academy for me to ask that first-class man to keep an eye on my new man?

Gen. MACARTHUR. No, sir; he would be delighted to.

Mr. CRAMTON. And point him the way and encourage him a little.

Gen. MACARTHUR. We go further than that; for every fourth class man that comes in, we require at least one upper class man to immediately recognize him, to make a friend of him, to advise him, and to assist him in any troubles that may arise.

To begin with, the upper class men no longer break the new class in; I take the upper classes away to Camp Dix and the new cadets for their first three months are handled by officers entirely.

Originally, the academic officers went on leave during the summer. I retain them now and use them for the purpose of handling the new fourth class, so that before they come into contact with the upper classes they are thoroughly organized, understand the situation thoroughly, and have had three months' training.

PAY OF CIVILIANS.

(See pp. 1258, 1266.)

Mr. ANTHONY. You propose to increase the pay of one professional civilian instructor in military gymnastics, fencing, boxing, wrestling, and swimming from \$1,500 to \$2,000?

Gen. MACARTHUR. Yes, sir; it is to make the ratings of all these men the same.

Mr. ANTHONY. These items are all the same, then, down to line 11, on page 24, where you propose to increase the pay of the superintendent of the gas works from \$1,500 to \$2,000?

Col. TIMBERLAKE. Yes, sir; I have changed the superintendent of the gas works up there I think five times in the last two or three years because they accept the position there at \$125 a month and immediately somebody wants them in commercial life. Our present man has been offered \$2,500 up in Ontario, Canada; and it is not a guess, because he has the offer in a letter from the outside parties. Other men have gone away; we can not keep a good man there at that price;

that wage is really nothing more than common laborer wages at the present time.

Mr. ANTHONY. You have asked for an increase here for practically all of your civilian employees.

Gen. MACARTHUR. Practically everybody.

Mr. ANTHONY. All the way through?

Gen. MACARTHUR. Yes, sir; they are practically all on the same basis.

Col. TIMBERLAKE. While I am on that I would like to——

Mr. ANTHONY. In considering this subject, is there any reason why we should take up the specific case of any one of them?

Col. TIMBERLAKE. No, sir. They are all in the same box; and right there is a letter from the Civil Service Commission showing that we are trying to get an engineer at the power plant. The wage is \$1,200 a year. It has been impossible to fill this position of engineer and fireman at the power plant because the men work eight hours a day and they have night work; they have Sunday work; it is seven days in the week; and they have to take their turn at night because the plant is going 24 hours a day. As they work under those conditions they see other men there a mile or so away getting \$145 to \$160 per month who have no night work and no Sunday work; so it is an impossibility to get efficient men.

Mr. ANTHONY. I see you have here a copy of a letter from C. W. Koiner, comptroller of accounts of the city of Pasadena, Calif., which says it is a disgrace to the United States to pay a chief engineer of a power plant \$2,700.

Col. TIMBERLAKE. That came to us a little before we advertised for an engineer of that power plant.

Mr. ANTHONY. How much were you going to pay him?

Col. TIMBERLAKE. \$1,200.

Mr. ANTHONY. That is what he says is disgraceful.

Col. TIMBERLAKE. Yes, sir; and so we ask that the salary of that position be increased to a reasonable amount so we can get an efficient man there.

Gen. MACARTHUR. The same unrest exists in the civil positions as the academy that, I fancy, existed at the time this appropriation was put in throughout all ranks of salaried men.

Mr. ANTHONY. Do these civilian employees there get anything in addition to the pay that is mentioned in this bill?

Gen. MACARTHUR. They get the \$240 that Congress provides; that is, practically all of them do.

Mr. ANTHONY. A bonus?

Gen. MACARTHUR. Yes, sir; a bonus.

Col. TIMBERLAKE. That is that increased compensation of \$240 a month.

Mr. ANTHONY. Do they get any allowance of any kind?

Col. TIMBERLAKE. None whatever.

Gen. MACARTHUR. No, sir; none.

Mr. ANTHONY. They do not get their quarters?

Gen. MACARTHUR. No, sir.

Col. TIMBERLAKE. No, sir. I would like to add something about that increased compensation. The War Department has ruled that on all salaries over \$1,000 per annum this increased compensation will not be paid until the recipient of the salary has served six months.

That means in a case of this kind that we can only offer that man \$1,200 per year, or \$100 a month, because he has got to stay there six months before we can put in an application to the War Department to get this increased compensation. As a result, nine out of ten of them will leave, or have left, before that requisition can be put and received back.

Mr. DENT. Is that the language of the bonus law?

Col. TIMBERLAKE. No, sir; it is not the language of the bonus law; it is just a regulation of the War Department that salaries over \$1,000 can not be increased until the recipient thereof has served six months.

Mr. ANTHONY. For instance, down at the bottom of page 24 you have new language: "For pay of one foreman steamfitter, \$1,560." That is a new place, is it not?

Col. TIMBERLAKE. Yes, sir; and I will tell you why that request was made, Mr. Chairman. In a great many of these buildings I put in all the steam fittings and steam plants by purchasing the material and hiring labor, and this requires a man of some ability to be a foreman to do that work efficiently and properly. While the work is paid for out of this appropriation, I may have more than one job at the same time and have to go somewhere else, which means I have got to break in another man. Therefore I would like to have this authorization. It is really going to bring no increase in cost to the Government, but it is going to result in increased efficiency of operation, because by doing this, rather than let the work out to contractors who hire pipe fitters at \$9 and \$10 per day, I am paying them less than \$6 a day. Now, in order to handle this work efficiently, I want a foreman over these men.

Mr. ANTHONY. You are asking for an increase in the number of oilers at the power plant from two to three.

Col. TIMBERLAKE. We want to increase it by one, because the power plant operates 24 hours a day, and that would give each man an 8-hour shift. We have an enlisted man down there, but it is not satisfactory to mix civilians and enlisted men; they do not get along very well together.

Mr. ANTHONY. The next item is on page 25, for pay of one confidential stenographer, copyist, librarian, and typewriter, to be appointed by the superintendent of the academy, \$1,000. What is the object of that?

Gen. MACARTHUR. The department of chemistry has no clerk; it is one of the few departments that has not; the professor has tried to get one approved several times, but it has always been cut out; why, I do not know. He has to do most of his work in longhand.

Mr. ANTHONY. Why do you have to entitle him a confidential stenographer?

Gen. MACARTHUR. It does not have to be so entitled, sir.

Col. TIMBERLAKE. Yes, sir; because he gets out all the questions for the examinations.

Mr. ANTHONY. Oh, yes.

Gen. MACARTHUR. But then all stenographers are supposed to be confidential, are they not?

Col. TIMBERLAKE. Yes, sir; but then if they do not put that in there is an exemption in the civil-service list.

Mr. ANTHONY. Is this item an absolute necessity?

Gen. MACARTHUR. I will not say that the academy will not run without it, because we have been running.

Mr. DENT. You have asked for it several years?

Gen. MACARTHUR. I would say it should be allowed for he is one of the only professors that has not got such a clerk, and he suffers comparison as a result.

Mr. ANTHONY. Another new item is pay of one assistant electrician \$1,600, on page 25, line 15.

Col. TIMBERLAKE. That can be cut out, sir.

Gen. MACARTHUR. He is replaced by the sergeant of the Signal Corps that we discussed above.

Mr. ANTHONY. On page 27 you have an item: Pay of one copier, stenographer, clerk, librarian, typewriter, for the department of ordnance and gunnery, to be appointed by the superintendent, \$1,400.

Gen. MACARTHUR. He has never had one before; that department is being reconstructed; it is really a machine shop department now, and the professor claims that he needs this man to properly administer the department.

Mr. ANTHONY. For pay of three first-class all around printers, headquarters, United States Military Academy, \$3,600.

Gen. MACARTHUR. These are to replace three soldiers; the printers are efficient men, soldiers, but they will not stay; the printing offices pull them away from us.

Mr. ANTHONY. What is that?

Gen. MACARTHUR. The printing offices pay higher salaries than we do, and we can not keep these men at all.

Mr. ANTHONY. You mean the civilian printing shops?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. They are taking these clerks?

Gen. MACARTHUR. Yes, sir; taking the soldiers.

Mr. ANTHONY. It is just the other way about at other military institutions of the country that I know of where the Government is paying higher wages than they get.—

Gen. MACARTHUR. In civil life.

Mr. ANTHONY. In civil life. What is the grade of the men you are now working as printers?

Gen. MACARTHUR. These are sergeants, sir.

Mr. ANTHONY. What is that?

Gen. MACARTHUR. Sergeants.

Mr. ANTHONY. What pay do they get?

Gen. MACARTHUR. They get \$45 as base pay—they get the equivalent of about \$90 a month, sir; but you understand the printing office here can not get men for this amount; the printing office would probably pay these men \$1,500 to start with.

Mr. ANTHONY. Page 28, for pay of skilled and unskilled employees in the office of the treasurer, cadet mess, cadet store, and cadet laundry, \$112,460.

Gen. MACARTHUR. I have here a complete list of the positions covered by this item. Under present conditions all of this is paid for by the cadets; they pay from their own meager salary for this service. At the Naval Academy that is not so. This entire organization at the Naval Academy is carried by the Government. It creates a great deal of resentment, as you can well understand, to have the main-

men get something more than the cadet at West Point. There is no reason why that condition should exist.

Mr. ANTHONY. General, have we not been making up for that, or did we not attempt to make up for that in the last academy appropriation bill making an increase in the allowance to the cadet in lieu of subsistence for the ration?

Gen. MACARTHUR. Yes, sir; but the Navy got a similar increase at once.

Mr. ANTHONY. The Navy did?

Gen. MACARTHUR. Immediately it was raised to the same amount.

Mr. ANTHONY. That is, they get an increase for their rations?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. As well as an appropriation to take care of the pay of the employees of their mess?

Gen. MACARTHUR. They did; they had the latter already and immediately after I obtained an increased ration they did likewise.

Mr. ANTHONY. Does that show an overdose of liberality on the part of the naval committee in treating the cadets at Annapolis, or the fact that we did not make sufficient allowance?

Gen. MACARTHUR. The latter would be my interpretation of it, sir. The Corps of Cadets is \$100,000 in debt.

Mr. ANTHONY. What do you mean by \$100,000 in debt?

Gen. MACARTHUR. I mean that if their accounts were settled to-day they would be \$100,000 in debt.

Mr. ANTHONY. Do you take into consideration the initial advance to the Government has made?

Gen. MACARTHUR. Yes, sir. A cadet is paid by the Government \$780 a year. He gets a ration which brings that amount up to something less than \$1,200 a year. In addition, he is housed; he receives free tuition; he receives the free use of certain general buildings, such as the library and recreation hall and gymnasium, but everything else he pays for out of his salary and emoluments; he pays for his clothes; he pays for his food, for the service of his food; he pays for his clothes; he pays for his washing; he pays for his textbooks; he pays for his drawing instruments; he pays for his amusements; and, of course, he carries himself on his furloughs and leaves. He lives a very simple life, but simple as it is he is very hard put to live on his present salary.

Now, the generosity of the Government is unquestioned in that they take and pay men and educate them and give them this wonderful opportunity; so it is a hard thing to appear before a committee of Congress on any basis of equity and ask for increases along this line; but if the principle is established that we are to carry these men and make them self-contained from the minute they come there, the emoluments they receive now are not quite sufficient.

Mr. DENT. How long has the Naval Academy had this allowance?

Gen. MACARTHUR. For years, sir. They have in addition a Government farm; nearly half a million dollars was put into it; it was stocked with cows; they get the butter, eggs, and farm stuff, all of which is in excess of anything that we have.

Mr. DENT. You have to buy that at West Point either out of the ration or out of the pay of cadets?

Gen. MACARTHUR. Yes, sir; the cadet has to pay for it; actually we buy it from the Harriman Farms at Arden.

Mr. ANTHONY. General, the footings of this item for pay of civilian amounts to \$253,300 for the next fiscal year and you are allowed \$103,880 for the current year.

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. I suppose that debt of \$112,460 is included in this item?

Gen. MACARTHUR. That would be the biggest item in it; yes, sir.

Mr. ANTHONY. For the pay of these people in the cadet mess as well as the increases that are proposed for the civilian personnel?

Gen. MACARTHUR. Yes, sir. I would like to put that organization into the hearings.

Mr. ANTHONY. What organization?

Gen. MACARTHUR. The one costing \$112,460.

Mr. ANTHONY. All right; you mean the organization for which the cadets pay themselves?

Gen. MACARTHUR. Yes, sir; to show what this \$112,460 represents.

For pay of skilled and unskilled employees in the office of the treasurer, in the cadet mess, cadet store, and cadet laundry.

CADET MESS—SKILLED LABOR.

Number and position.	Monthly pay.	Yearly pay.	Total.	Basis of calculation.
1 steward.....	\$175.00	\$2,100.00	\$2,100.00	1 for department. ¹
3 assistant stewards.....	100.00	1,200.00	3,600.00	1 for each 600 cadets and over
1 chief clerk and purchasing agent.....	150.00	1,800.00	1,800.00	1 for department. ¹
1 clerk (stenographer).....	116.67	1,400.00	1,400.00	1 for each 1,000 cadets. ²
1 clerk (typist).....	90.00	1,080.00	1,080.00	1 for each 1,000 cadets. ²
1 head baker.....	125.00	1,500.00	1,500.00	1 for department. ¹
5 bakers.....	85.00	1,020.00	5,100.00	1 for each 225 cadets. ¹
5 bakers.....	65.00	780.00	3,900.00	1 for each 225 cadets. ¹
1 head cook.....	125.00	1,500.00	1,500.00	1 for department. ¹
13 cooks.....	75.00	900.00	11,700.00	1 for each 100 cadets. ¹
13 cooks.....	50.00	600.00	7,800.00	1 for each 100 cadets. ¹
1 head butcher.....	110.00	1,320.00	1,320.00	1 for department. ¹
3 butchers.....	75.00	900.00	2,700.00	1 for each 500 cadets. ¹
2 chauffeurs.....	90.00	1,080.00	2,160.00	1 for each truck. ¹
1 head waiter.....	125.00	1,500.00	1,500.00	1 for department. ¹

CADET MESS—UNSKILLED LABOR.

1 butcher's helper.....	\$50.00	\$600.00	\$600.00	1 for each 1,000 cadets. ¹
1 head pantryman.....	75.00	900.00	900.00	1 for all pantries (in charge)
4 pantrymen.....	50.00	600.00	2,400.00	2 in each pantry. ¹
2 dish washers.....	50.00	600.00	1,200.00	1 for each dish-washing machine
2 coffee men.....	50.00	600.00	1,200.00	2 for coffee, tea, and cereals chimes. ¹
5 handymen.....	70.00	840.00	4,200.00	1 for each 200 cadets. ¹
2 scullions.....	45.00	540.00	1,080.00	1 for each 500 cadets. ¹
2 assistant head waiters.....	65.00	780.00	1,560.00	1 for each 500 cadets. ¹
50 waiters.....	45.00	540.00	27,000.00	1 for each 2 tables. ¹
Total cadet mess.....			89,300.00	

CADET LAUNDRY—SKILLED LABOR.

1 manager.....	\$175.00	\$2,100.00	\$2,100.00
1 clerk.....	90.00	1,080.00	1,080.00
1 chauffeur.....	90.00	1,080.00	1,080.00
Total cadet laundry.....			4,260.00

¹ Working 7 days per week.

² Working 6 days per week.

For pay of skilled and unskilled employees in the office of the treasurer, in the cadet mess, cadet store, and cadet laundry—Continued.

CADET STORE—SKILLED LABOR.

Number and position.	Monthly pay.	Yearly pay.	Total.	Basis of calculation.
1 manager.....	\$175. 00	\$2, 100. 00	\$2, 100. 00	
1 stenographer.....	70. 00	840. 00	840. 00	
1 head clerk.....	100. 00	1, 200. 00	1, 200. 00	
3 clerks.....	75. 00	900. 00	2, 700. 00	
1 head cutter.....	150. 00	1, 800. 00	1, 800. 00	
1 assistant cutter.....	90. 00	1, 080. 00	1, 080. 00	
3 clerks.....	60. 00	720. 00	2, 160. 00	
1 messenger.....	50. 00	600. 00	600. 00	
Total cadet store.....			12, 480. 00	

TREASURER'S OFFICE—SKILLED LABOR.

1 stenographer and file clerk....	\$90. 00	\$1, 080. 00	\$1, 080. 00	
1 clerk.....	125. 00	1, 500. 00	1, 500. 00	
4 clerks.....	80. 00	960. 00	3, 840. 00	
Total treasurer's office....			6, 420. 00	

RECAPITULATION.

Cadet mess.....	\$89, 300. 00
Cadet laundry.....	4, 260. 00
Cadet store.....	12, 480. 00
Treasurer's office.....	6, 420. 00
Total.....	112, 460. 00

NOTE.—The pay of cadets is insufficient to support them. They are now, August 1, 1920, approximately \$81,851.53 in debt, an average rate of \$77.22 per cadet. The rate of pay of a cadet is the same as that of a midshipman. But at the Naval Academy the above expenses are paid by the Government. This item would place a West Point cadet approximately on an equal pay rating with an Annapolis midshipman.

DISBURSEMENT OF MONEYS.

Mr. ANTHONY. Now, on page 29, do you think it is wise to continue that item?

Gen. MACARTHUR. I do, sir.

Col. TIMBERLAKE. Yes, sir.

Mr. ANTHONY. Would not that enable you, in case Congress did not think it was wise to increase the pay of some specific civilian employee, would not that enable you to go ahead and increase his pay?

Gen. MACARTHUR. No, sir.

Mr. ANTHONY. But you could use that pay for some one who was employed here in a military capacity?

Gen. MACARTHUR. No, sir; I can not spend a cent unless specifically authorized, not a cent.

Col. TIMBERLAKE. I will tell you how it could be used, Mr. Anthony; it came up in the hearing on the deficiency bill yesterday. We have pay of cadets, for instance, last fiscal year, \$850,000.

Mr. ANTHONY. For pay of cadets.

Col. TIMBERLAKE. Yes, sir. Congress authorized last year \$250 per head, that is additional allowance, but made no specific appropriation to pay that item, and that proviso required two hundred and nine thousand and some odd dollars which I paid out of that \$850,000; that left me a deficiency of \$209,000 out of that \$850,000; going back yesterday and on account of the reduction in the number of cadets I have reduced that \$209,000 by \$85,000.

Mr. ANTHONY. In other words, you had \$85,000 unexpended balance from these items that you utilized for that purpose?

Gen. MACARTHUR. Yes, sir; but only for things that are authorized by Congress.

CURRENT AND ORDINARY EXPENSES.

Mr. ANTHONY. On page 30, for expenses of the Board of Visitors have you had a Board of Visitors at the academy recently?

Gen. MACARTHUR. Unfortunately not for two years, sir.

Mr. ANTHONY. That is because of the failure of the committee of Congress to act?

Gen. MACARTHUR. I fancy so, sir; I do not know. Of course the Board of Visitors is above and beyond the influence of the superintendent; I am not authorized to invite them, but I trust very sincerely that a Board of Visitors will come and look us over.

Mr. ANTHONY. There has been no expenditure for the Board of Visitors?

Gen. MACARTHUR. Not for two years.

Col. TIMBERLAKE. There has been none since 1918.

Mr. ANTHONY. I think there ought to be a committee go up to look you over one of these days.

Gen. MACARTHUR. I think a very excellent committee would be this subcommittee.

Mr. DENT. So it has not been visited since 1918?

Gen. MACARTHUR. Not that I know of; this is my second year and nobody has ever come up in that time.

Col. TIMBERLAKE. The last time was December, 1918.

FRIDAY, JANUARY 14, 1922

CURRENT AND ORDINARY EXPENSES.

CONTINGENCIES FOR THE SUPERINTENDENT.

Mr. ANTHONY. The next item is for contingencies for the Superintendent of the Academy, for which you are asking \$3,000. How is this money expended?

Gen. MACARTHUR. That is expended on the voucher of the Superintendent. It is for the purpose of providing for the official entertainments which are constantly going on there, such as the visit of the King of Belgium, the Prince of Wales, and others. There is hardly a week that goes by that the State Department or some other department of the Government does not send some foreign guests there.

Mr. ANTHONY. Does it absorb all of this fund?

Gen. MACARTHUR. Yes, sir. That item has been in the bill many years.

REPAIRS AND IMPROVEMENTS.

Mr. ANTHONY. Your next item is for repairs and improvements, timber, plank, boards, joists, wall strips, laths, shingles, slate, tin, etc., for which you are asking \$75,000 for 1922. The appropriation for 1921 was \$55,000.

Gen. MACARTHUR. I want to say, Mr. Chairman, that this estimate was prepared in August upon the rates for material at that time. Since then materials have come down in price, and I believe in this item as in a great many others—the old figures can be retained.

Mr. ANTHONY. You think you could get along then with the same amount of lumber you have this year?

Gen. MACARTHUR. There was no question about the amount. The increase in the money involved in this estimate was due to increased prices, the increased cost of material. The amount of lumber is no greater, and the prices are now coming down, hence the cut is possible.

Mr. ANTHONY. What is the lumber and building material used for, for repairs?

Col. TIMBERLAKE. For repairs and for the maintenance of existing structures.

FUEL AND APPARATUS, COAL, WOOD, ETC.

Mr. ANTHONY. For fuel and apparatus, coal, wood, etc., you are asking for an appropriation of \$80,000, of which \$10,000 shall be immediately available. The appropriation for 1921 was \$70,000, so that you are asking for an increase of \$10,000 over the amount of the appropriation for the current year?

Gen. MACARTHUR. That is due to the increased cost of coal and coke.

Mr. ANTHONY. Do you find any tendency in the price of coal and wood to come down?

Col. TIMBERLAKE. No, sir. The price so far has gone up.

Mr. ANTHONY. The evidence before this committee the other day was to the effect that the prices at the mines were dropping materially.

Col. TIMBERLAKE. That has not been reflected in the prices we have had to pay, because I understand that this coal which cost us \$10.70 a ton costs \$4.25 a ton at the mines.

Mr. ANTHONY. That is your hard coal?

Col. TIMBERLAKE. Yes, sir; we burn anthracite entirely except at the gas plant.

Mr. ANTHONY. How does the price you are paying compare with the contract price of the War Department?

Col. TIMBERLAKE. This is the same.

Mr. Sisson. You have a deficiency in this item, have you not? You are asking that \$10,000 shall be made immediately available.

Col. TIMBERLAKE. That language can come out.

Mr. ANTHONY. What was the purpose of putting in the language "shall be immediately available?" Was that to allow you to make your contract early in the spring if necessary?

Col. TIMBERLAKE. That was in the bill last year. It would allow us to make a contract early in the spring. Then we did run out of funds last year, and we would have run out of coal for the power plant if we had not had that provision in there.

Mr. ANTHONY. Senator Calder has made a recommendation to this committee that we grant authority to the War Department to spend the money appropriated for coal for the next fiscal year immediately, with the idea of taking advantage of the spring price or the spring contracts which are arranged between the miners and the operators. I thought perhaps you had the same idea.

Col. TIMBERLAKE. I buy this coal myself. It is the cheapest grade we can get. It is what they call barley or bird's-eye coal, and there has not been so much of an increase on that. There has been an increase in the amount. Then the freight has been the main item in this cost, because we were paying up until the Interstate Commerce Commission allowed the railroads a 40 per cent increase \$2.30, and now we are paying \$3.22. We use about 13,000 tons of coal a year, so that amounts to an increase of \$11,000 or \$12,000 a year, due to the increased freight rates.

Mr. ANTHONY. With the general tendency toward reduction of prices would you probably be able to get along with what you had last year?

Gen. MACARTHUR. If the price goes down, undoubtedly we will be able to do that.

Mr. ANTHONY. Is that all used in your power plant?

Col. TIMBERLAKE. That is, all of that item. We have another item for the coal furnished on the Quartermaster General's contract which the Military Academy buys from the Quartermaster General.

Gen. MACARTHUR. Last year, with \$70,000 for this item we had a deficiency of \$11,000, and we were before a subcommittee of the Committee on Appropriations a couple of days ago on that deficiency.

GAS AND ELECTRIC FIXTURES, ETC.

Mr. ANTHONY. For gas pipe, gas and electric fixtures, etc., you are asking \$15,000 instead of \$10,000. What is the reason for that increase of \$5,000?

Gen. MACARTHUR. We can cut that down. That was based on figures made out in August. The old appropriation will be sufficient.

Mr. ANTHONY. Is that an item for repairs and replacement, or new work?

Gen. MACARTHUR. That is for replacement.

Mr. ANTHONY. Do you use that amount every year?

Col. TIMBERLAKE. For fixtures—gas and electric fixtures. That is not for gas coal.

FUEL FOR CADETS' MESS HALL, SHOPS, AND LAUNDRY.

Mr. ANTHONY. You have an item for fuel for cadet mess hall, shops, and laundry for which you are asking \$20,000. Last year you had \$15,000 for that item.

Col. TIMBERLAKE. That is the item I referred to a moment ago. I think the price on that is going down, and if it does, we will need more than the amount we had last year.

Gen. MACARTHUR. I think the amount of the old appropriation would be satisfactory.

Mr. ANTHONY. Did you have a deficiency in that item?

Col. TIMBERLAKE. No, sir.

POSTAGE AND TELEGRAMS.

Mr. ANTHONY. Your next item is for postage and telegrams, for which you are asking \$1,500, which is an increase of \$300 over the appropriation you had last year.

Gen. MACARTHUR. That is due to the increase in the size of the Cadet Corps. While that is the estimated amount, there is no objection to cutting it down to the amount of the former appropriation.

Mr. ANTHONY. Why do you have to pay for postage? Do you not use the franking privilege?

Gen. MACARTHUR. We have to send out a good deal of our correspondence under security stamps.

Mr. ANTHONY. You mean by registered mail?

Gen. MACARTHUR. Yes, sir; all examinations, and a great many of those things which are supposed to be confidential.

Col. TIMBERLAKE. The examination papers require postage.

Mr. ANTHONY. You mean you have to put postage on your examination papers?

Col. TIMBERLAKE. Yes, sir.

Gen. MACARTHUR. That is, the furnishing of examination papers. We have to send examination papers to various points in order to save the expense of collecting the candidates for examination at one point.

Mr. ANTHONY. That is official business, is it not?

Gen. MACARTHUR. That is official business, but we have to have that mail registered.

Mr. ANTHONY. You do not have to pay the ordinary postage?

Gen. MACARTHUR. No, sir. This is for the security stamps only.

Mr. ANTHONY. You have the Government rate on telegrams?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. You make payments yourself for telegrams?

Gen. MACARTHUR. Yes, sir; and that item also includes telephone calls—long-distance telephone calls.

STATIONERY.

Mr. ANTHONY. You are asking \$4,000 for stationery, for blank books, paper, and so forth. Last year you had an appropriation of \$3,500 for that item. What is the reason for that \$500 increase?

Gen. MACARTHUR. That can be cut out.

Mr. ANTHONY. But you think you need the \$300 increase for postage and telegrams?

Gen. MACARTHUR. Yes, sir; I think so. I am perfectly willing to cut it out, however, and do what we can on the old figures.

TRANSPORTATION OF MATERIALS, CADETS, ETC.

Mr. ANTHONY. For transportation of materials, cadets, and so forth, you are asking \$20,000. What is that item?

Col. TIMBERLAKE. That is the same as it has been heretofore. That is for the transportation of materials, but principally of discharged cadets, averaging 180 cadets at \$50 each. We have to pay the expenses of the discharged cadets to their homes, including mileage, Pullman fare, and so forth.

Mr. ANTHONY. What kind of materials are included in those items miscellaneous articles?

Col. TIMBERLAKE. Yes, sir; miscellaneous articles. Sometimes the academy wants to transmit some things to other colleges, to loan them to colleges temporarily, and get them back, and it includes the sending of things that come in free.

Mr. ANTHONY. Did you expend \$20,000 for that item last year?

Gen. MACARTHUR. This also covers, in addition, the trips that the members of the first class take to the battlefield of Gettysburg in the course of their instruction, and the trips they take to Sandy Hook to Watervliet Arsenal, and other points of instruction.

Mr. ANTHONY. Why do you want to omit the word "discharged" preceding the word "cadets"?

Gen. MACARTHUR. That was to cover the movement of cadets which I have just explained.

Mr. ANTHONY. If you did not have the word "discharged" there you could not pay for the transportation of materials belonging to a discharged cadet, because he would no longer be a cadet.

Gen. MACARTHUR. I believe that is correct. It ought to be for the transportation of materials, cadets, discharged cadets, etc.

Mr. Sisson. You would have to have the words "discharged cadets and cadets" in there in order to meet that proposition. It seems to me. How have you been paying that heretofore?

Gen. MACARTHUR. The committee last year cut the wording down. It formerly read as follows:

For transportation of materials, discharged cadets, including Pullman accommodations, and \$3 per day or fraction thereof for subsistence and other expenses for necessary number of days' travel over the shortest usually traveled route, and ferriages; for hire of camp sites for cadets on practice marches, for transportation of first class of cadets to and from Gettysburg battlefield, for transportation of first and second classes to and from Watervliet Arsenal and Sandy Hook Proving Grounds, other ordnance establishments, including a visit to a steel mill, for expenses of officers detailed to accompany cadets on these trips, and for expenses of officers of the department in looking up camp sites, and so forth.

Mr. Sisson. That simply copied the law into the appropriation bill.

Gen. MACARTHUR. Yes, sir.

Mr. Sisson. But the Comptroller in passing upon your bills, will look at that statute and be controlled by it.

Gen. MACARTHUR. Unquestionably.

Mr. Sisson. If the committee should leave out the words "discharged cadets and cadets" you probably would not be able to run that expense out of this item.

Gen. MACARTHUR. I agree with you fully; it could not be expended for the transportation of cadets.

Mr. Sisson. The word "discharged" might be put in there, as you put in the words "cadets and discharged cadets" it would cover everything you have there.

PRINTING AND BINDING.

Mr. ANTHONY. Can you not get along with the amount you have for this year for printing and binding? I see you are asking for \$1,000 for the fiscal year 1922, which is an increase of \$500 over the appropriation for this year.

Gen. MACARTHUR. All of these materials will probably be reduced in price.

Mr. ANTHONY. You can get along with the old sum?

Gen. MACARTHUR. Yes, sir. You understand these estimates were made in August to the War Department and prices were very high at that time and apparently were still on the upward scale. They are coming down now, and I think by the time we really have to use this money that old amount will be sufficient.

Mr. ANTHONY. We will pass over the items for ordinary supplies where you have asked for an increase, with the understanding that you can get along with the old amount.

Gen. MACARTHUR. Yes, sir.

PREPARATION AND UPKEEP OF DRILL, PARADE, AND ATHLETIC GROUNDS.

Mr. ANTHONY. You are asking for the preparation and upkeep of drill, parade, and athletic grounds, \$10,000. The appropriation this year was \$500, so that you are asking for a very material increase in that item.

Gen. MACARTHUR. That can be cut out entirely. That is covered in another item.

CAMP STOOLS, OFFICE FURNITURE, ETC.

Mr. Sisson. I notice you have an item there for camp stools, office furniture, and so forth, for which you are asking \$6,000. Have you been carrying that item regularly?

Gen. MACARTHUR. Yes, sir.

Mr. Sisson. Do you need that much every year?

Gen. MACARTHUR. Yes, sir; that is to cover the deterioration of the entire establishment along such lines.

Mr. ANTHONY. What furniture do you buy every year out of that appropriation?

Gen. MACARTHUR. Desks and stools for the cadets are perhaps the biggest items that would come out of that amount. It relates to the fixtures in the section rooms, such as blackboards, erasers, etc. The itemized statement of that is as follows:

For camp stools, camp and office furniture, and repairs to same; for doormats for cadet headquarters, sinks, and guardhouse; for stationery, typewriting supplies and repairs; for use of instructor and assistant instructors of tactics; for one computing machine and one adding machine; for books and maps, binding books, and mounting maps; for plumes, silk and worsted sashes for cadet officers and acting officers; for furniture, curtains, and rugs for cadet reception room, and contingencies.

Mr. ANTHONY. That covers nearly everything you want to buy?

Gen. MACARTHUR. Yes, sir.

GYMNASIUM AND ATHLETIC SUPPLIES.

Mr. ANTHONY. For gymnasium and athletic supplies, etc., you are asking \$10,000, which is an increase of \$5,000 over the amount you had last year.

Gen. MACARTHUR. Yes, sir. I need \$10,000 for that item. We have had to rely upon charity this year, the contributions given by

Army officers to the Army Athletic Association, to buy a sufficient number of athletic uniforms for the cadet corps. I have established a system of athletic training which requires every cadet in the corps to be instructed in all of the major athletic games, for the purpose of being trained so that he can be a competent athletic instructor of soldiers in the future. That means there must be equipment for 500 men for football, and the same thing for baseball, ice hockey, and so on. We obtained several thousand dollars this year from outside sources, not governmental sources, in order to purchase original equipment. But if the present athletic plan is to be kept up the increased appropriation will be necessary. In addition, it covers everything in the gymnasium, all the gymnasium equipment, the boxing, fencing, and swimming outfits.

Mr. Sisson. There is no inhibition upon your receiving outside contributions?

Gen. MACARTHUR. No, sir; these contributions are made by the graduates of the Military Academy.

Mr. Sisson. They come from the least objectionable source.

Gen. MACARTHUR. For the support of athletics only. We do not, of course, ordinarily solicit or accept charity.

MAINTENANCE OF AUTOMOBILE.

Mr. ANTHONY. You are asking for the maintenance of one automobile, \$300. Whose automobile is that?

Col. TIMBERLAKE. That is an automobile bought out of Military Academy funds about three years ago. It is a Ford automobile bought for the department of practical military engineering and is used in running around the pipe line, and getting around to different places. It is used by the professor in that branch for instruction. I take his instructions out.

Mr. ANTHONY. How many automobiles do you have on the post at West Point?

Col. TIMBERLAKE. As Military Academy machines we have the one and a little Ford truck used by the same department. Then we have for the general uses of transportation—that is, the Motor Transport Corps——

Mr. ANTHONY (interposing). Have you a regular Motor Transport detachment there?

Col. TIMBERLAKE. Yes, sir; of 100 men.

Mr. ANTHONY. With how many machines, and what kind machines?

Col. TIMBERLAKE. With about 35 big trucks, 2 ambulances, about 15 small runabout trucks, delivery trucks, and about 15 touring cars.

Mr. ANTHONY. They are all maintained out of the appropriation for the Quartermaster Corps of the Army?

Col. TIMBERLAKE. Yes, sir.

Gen. MACARTHUR. It is a regular Transport unit.

Col. TIMBERLAKE. I can say positively that these machines are not used except on official business.

Mr. Sisson. Do you in your instruction endeavor to give the young students some knowledge of the mechanism of a truck and an automobile and things of that sort, so that as officers they may be

the better able to perform their duties if they have charge of such things?

Gen. MACARTHUR. Yes, sir; we have a course in motor transportation. Every cadet who graduates from now on will have had that training.

Mr. Sisson. In addition to that general course in mechanics, you have a special course in transportation?

Gen. MACARTHUR. Yes, sir.

Mr. Sisson. In which you include a knowledge of the mechanism of automobiles?

Gen. MACARTHUR. Yes, sir; and their running. Every cadet who graduates from the Military Academy should not only be able to drive a car or a truck, but should be able to make necessary minor repairs.

Col. TIMBERLAKE. Our trucks, in general, are used extensively for cadet transportation, to get them to their drills and back again without loss of time. We take them down, and they come back in time for their meals, with a minimum expenditure of time.

REPAIRS TO SADDLES, BRIDLES, ETC.

Mr. ANTHONY. You are asking \$500 for repairs to saddles, bridles, etc. Do you intend to buy any new saddles or bridles out of that amount?

Gen. MACARTHUR. No, sir.

Mr. ANTHONY. Have you bought any new saddles or bridles out of any appropriation?

Gen. MACARTHUR. No, sir.

MAINTENANCE OF SEARCHLIGHTS.

Mr. ANTHONY. You are asking for \$250 for the purchase of carbons and for repairs and maintenance of searchlights. That is confined entirely to searchlights?

Gen. MACARTHUR. Yes, sir.

Mr. Sisson. What sort of searchlights have you at West Point?

Col. TIMBERLAKE. We have two 36-inch searchlights on trucks, portable searchlights.

Mr. Sisson. I want to congratulate you on being able to keep those in repair for \$250.

Col. TIMBERLAKE. They are not used every day.

Gen. MACARTHUR. They do not get the same field service that the ordinary searchlight does.

Col. TIMBERLAKE. They are used for the instruction of cadets, and they only have so many hours of instruction in those per year.

Mr. Sisson. You teach the cadets how to use the searchlights, too?

Col. TIMBERLAKE. Yes, sir.

Mr. Sisson. Because in modern warfare they fight about as much at night as in the daytime.

Gen. MACARTHUR. These men are instructed in the use of all modern military appurtenances and weapons.

Mr. ANTHONY. Why do you have to ask for \$75 for the purchase of stationery and office supplies for the office of the senior instructor

of Coast Artillery tactics? Why can you not take that out of some other appropriation?

Col. TIMBERLAKE. Because the other appropriations are insufficient.

Mr. Sisson. You might need some really technical sort of stuff that would not be in general stock.

Col. TIMBERLAKE. This is for ordinary stationery. They are all items which have been carried for several years in that way.

Mr. ANTHONY. There is no appropriation in the Army Bill minutely detailed as this.

Col. TIMBERLAKE. No, sir.

PURCHASE OF MACHINES, TOOLS, TEXTBOOKS, ETC.

Mr. ANTHONY. You are asking for \$1,000 for the purchase of machines, tools, textbooks, and material for the tactical instruction of cadets in the maintenance, repair, and operation of all classes of motor transportation and automobile or internal combustion engines. That is a new item. What is the reason for that?

Gen. MACARTHUR. We have established this motor course during the last year.

Mr. ANTHONY. There are enough machines and tools, are there not, at the big motor transport repair shops? Why can you not get your supply there?

Gen. MACARTHUR. Of course, we have an ample supply, and we do use them. But this item is for textbooks and things of that type.

Mr. ANTHONY. Yes; and it also includes machines and tools. Do you propose to buy machines and tools out of this item?

Gen. MACARTHUR. The tools we have are used in the motor repair shop for upkeep purposes. Each cadet would have to have a set of tools to do his work, or we would have to confine our instruction to a very few tools actually being used in service.

Mr. ANTHONY. Do you intend to buy any lathes out of this?

Gen. MACARTHUR. You could not get them out of \$1,000. These are the small hand tools.

Col. TIMBERLAKE. We want to get things that are not standard. We want to get parts of engines, and things of that sort, and a great many of those have already been contributed by manufacturers.

Mr. Sisson. In other words, you do not confine yourself to a one particular automobile or any one particular engine, because of the construction and improvement of automobile engines there is a great deal of controversy about which is the best engine.

Col. TIMBERLAKE. Yes, sir.

Mr. Sisson. So you have different engines and different prices involved?

Col. TIMBERLAKE. And different carburetors. There is a question about those. It is almost impossible to get instruction for any of the standard machines we have in the service. We put in a requisition for instruction books and they told us they did not have them and that we should write to the manufacturers, and some of the manufacturers would send them and some others would charge 25 cents each for them, or 35 cents.

Mr. Sisson. And you do not happen to have the 50 cents or the 35 cents?

Col. TIMBERLAKE. Then we have to go down in our pockets.

Mr. Sisson. I do not know why you should depend upon the courtesy of any automobile manufacturer.

Col. TIMBERLAKE. We thought that courtesy would be extended, especially in those cases, for instance, like the Dodge car, where the Government has bought thousands of them, but the Dodge Company will not send us one instruction book unless we pay for it.

PURCHASE OF WINDOWS, DOORS, ETC.

Mr. ANTHONY. For the purchase of windows, doors, and material necessary to complete one steel hangar so as to make it into a suitable gun and motor vehicle shed, you are asking \$1,000. I suppose this is one of the airplane hangars you secured from surplus.

Gen. MACARTHUR. We have the hangar erected already and this item can go out.

Mr. ANTHONY. For the repair of mattresses, machines, etc., in the gymnasium of the Cavalry barracks, you are asking \$100. That is a regular item?

Gen. MACARTHUR. Yes, sir.

MATERIAL FOR HURDLES, ETC., IN THE RIDING HALL.

Mr. ANTHONY. For material for hurdles, etc., in the riding hall, you are asking \$600.

Gen. MACARTHUR. That is an old item.

Mr. ANTHONY. Do you need that much every year?

Gen. MACARTHUR. Yes, sir.

GENERAL MAINTENANCE AND REPAIR TO THE SITE OF THE CADET CAMP.

Mr. ANTHONY. The next item is for general maintenance and repair to the site of the cadet camp, for which you are asking \$10,000. You want to omit the words "to be immediately available"?

Gen. MACARTHUR. The words "to be immediately available" can be cut out; yes, sir.

Mr. ANTHONY. What did you get for this item last year?

Gen. MACARTHUR. Ten thousand dollars. We no longer have the cadet camp at West Point. We take the corps away to one of the big divisional camps in order to utilize the training facilities of the regular Army troops at such a camp. We are converting the cadet camp site into a new athletic field and parade ground. We are putting in a running track and 25 tennis courts, one football field and two baseball diamonds. This money is to convert the old camp site into a new athletic field.

Mr. Sisson. How far is that from the institution?

Gen. MACARTHUR. It is on the main parade ground.

Mr. Sisson. Is it adjoining the institution?

Gen. MACARTHUR. Yes, sir; it is part of the main parade; it is the northeast corner of the main parade.

Mr. Sisson. Are you very much crowded there for ground?

Gen. MACARTHUR. Formerly; yes, sir. But taking away the cadet camp has relieved the situation greatly.

Mr. ANTHONY. In changing the camp site into an athletic field does that destroy the ground in any way for military purposes?

Gen. MACARTHUR. No, sir; it improves it.

Mr. ANTHONY. You can still use it for the formations?

Gen. MACARTHUR. Yes, sir. The old camp site is very rough and broken and surfaced with sand. We now hope to convert it into a green parade.

Mr. Sisson. May I ask also, largely for my own information, how much ground you have at West Point?

Gen. MACARTHUR. About 3,574 acres. But a great deal of this is wooded and can not be used for any purpose except reconnaissance.

REPAIR OF OBSTACLES ON MOUNTED-DRILL GROUND.

Mr. ANTHONY. You are asking \$150 for the repair of obstacles on the mounted-drill ground and for constructing other obstacles, and so forth. You had an appropriation of \$100 last year for this purpose. Do you need the extra \$50?

Gen. MACARTHUR. No, sir.

PURCHASE OF THREAD, WAX, NEEDLES, ETC.

Mr. ANTHONY. You are asking for \$200 for the purchase of thread, wax, needles, etc., in the Cavalry stables. That is the usual appropriation for that purpose?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. It seems to me that ought to buy a lot of wax and thread. Do you actually use that during the year?

Gen. MACARTHUR. We have a balance now under that item \$69.05.

Mr. ANTHONY. You have another item for the purchase of the same material in the Artillery stables. Why do you have two items for wax, thread, and needles?

Gen. MACARTHUR. One for the Cavalry and one for the Artillery.

Mr. ANTHONY. Why can you not lump that in one item?

Gen. MACARTHUR. There is no reason that I know of except a close check placed upon all academy appropriations.

Col. TIMBERLAKE. If you lump that one detachment could use all and the other might get nothing.

MATERIAL FOR PRESERVING FLOORS.

Mr. ANTHONY. That would be up to you. You are asking for \$100 for material for preserving floors, etc., in the Artillery barracks and stables. You are asking for \$100 more for that item than you had the appropriation for 1921.

Gen. MACARTHUR. There is no change needed in the amount for that item.

PURCHASE OF TOOLS, MACHINES, ETC.

Mr. ANTHONY. You are asking for \$2,500 for the purchase of tools, machines, etc., for the Artillery gun shed. Do you have to buy many tools every year?

Gen. MACARTHUR. No. There is a balance of \$500 there now. I think that \$2,000 will cover that item.

Mr. ANTHONY. You can get along with \$100 for the repair to mattresses, machines, etc., in the drill hall and gymnasium of the Artillery barracks, can you not?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. Do you need \$150 for the purchase of new and upkeep of worn-out rubber matting in the squad rooms of the Artillery barracks?

Col. TIMBERLAKE. That amount has all been spent.

PURCHASE OF STATIONERY, ETC.

Mr. ANTHONY. You are asking for \$150 for the purchase of stationery and office furniture in the office of the senior instructor of Field Artillery tactics. The appropriation last year was \$100.

Gen. MACARTHUR. There is no change needed there. The old amount will be sufficient.

Mr. ANTHONY. For material for preserving floors, etc., in the Cavalry barracks and stables you are asking for \$250 instead of \$100, which was the amount of the appropriation for 1921.

Gen. MACARTHUR. That can be cut down to the old figure.

Mr. ANTHONY. I take it you still need the item of \$100 for the repair of mattresses, machines, etc., in the drill hall and gymnasium of the Engineer barracks?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. For the department of civil and military engineering you are asking for \$1,200 for textbooks, stationery, etc. Is that amount used every year?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. Do you still need that much?

Gen. MACARTHUR. I think it is practically consumed every year.

Mr. ANTHONY. How much did you have left over this year?

Col. TIMBERLAKE. It was all expended last year.

TEXTBOOKS FOR NATURAL PHILOSOPHY DEPARTMENT.

Mr. ANTHONY. You are asking for \$5,000 for textbooks, apparatus, and so forth, for the department of natural and experimental philosophy. That is an increase of nearly \$3,000, because you had an appropriation this year of \$2,350.

Gen. MACARTHUR. The old item carried an amount of \$2,350. The item asked for shows an increase of \$2,650 for the following reasons: First, to extend and improve the physical laboratory equipment and the laboratory course; second, the original item was based on classes about 50 per cent as large as the average classes will be in the future; third, the cost of all physical laboratory apparatus has increased 50 to 100 per cent during the past three years.

TUITION, ETC., FOR INSTRUCTORS DETAILED FOR TRAINING AT COLLEGES.

Mr. ANTHONY. You have a new item "For tuition and incidental laboratory expenses of instructors on detached service at civil educational institutions taking courses of instruction to equip themselves

for duty as instructors at the United States Military Academy," for which you are asking \$3,000.

Gen. MACARTHUR. There has been a great deal of criticism of what is known as the ingrowing tendency of the instruction at West Point. The majority of our instructors are selected from the graduates of the institution. To meet that complaint and to broaden the vision of the instructors the academic board recommended that instructors before coming to West Point shall take a year's course in the subject that they are going to teach at the academy in some educational institution outside of the academy. This amount is to cover the tuition.

Mr. ANTHONY. Why would it not be better to change your instructors once in a while?

Gen. MACARTHUR. We do. The instructors only stay four years.

Mr. ANTHONY. And get the finished material at these colleges for instructors at West Point.

Gen. MACARTHUR. We do. We have now about 32 at the academy who are not graduates of West Point.

Mr. ANTHONY. How many instructors do you intend to send to the colleges for instruction purposes?

Gen. MACARTHUR. I judge if this appropriation is made we will send all that the War Department will permit us to send. When an officer is detailed for four years for instruction purposes at West Point, during the first year of those four he will be sent to some university for a special course. That course will be mapped out for him by the professor in charge of that particular subject at West Point.

Mr. ANTHONY. You intend to take officers who already hold commissions in the Army?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. For instruction purposes at West Point?

Gen. MACARTHUR. Yes, sir. That, you understand, is a retirement on our present instruction. It is not essential although highly beneficial.

Mr. Sisson. In other words, that would result in a four year detail for purposes of instruction being reduced to three years?

Gen. MACARTHUR. Three years at West Point; yes, sir.

Mr. ANTHONY. I am not going to ask you about these minor increases. We are going to take them out.

Gen. MACARTHUR. They are on the same basis as the others we have been talking about.

BOOKS FOR LAW DEPARTMENT.

Mr. ANTHONY. For books, stationery, etc., for the department of law, you are asking for a radical increase, from \$850, the amount of this year's appropriation, to \$2,250. What is the reason for that?

Gen. MACARTHUR. That is due to a change in the method of instruction in the law department. Instead of the old text-book recitation method we have gone to the case system, which requires a great increase in briefing material. It also requires a somewhat greater expansion of the reference library. We have to have certain law books, and instead of having one or two copies, we have to have 30 or 40 copies in order to accommodate the students.

Mr. ANTHONY. Do you only have instruction in military law at West Point?

Gen. MACARTHUR. No, sir; military law is the least feature of the law course. The first part of the law course is based upon civil law training. At the end of the course the cadets get military law. That is really the smallest part of the course.

Mr. ANTHONY. What part of the four-year course does the cadet devote to the study of law?

Gen. MACARTHUR. During the last six months of the senior year.

Mr. Sisson. You also teach international law, especially do you not?

Gen. MACARTHUR. We no longer teach that.

Mr. Sisson. You have stopped that?

Gen. MACARTHUR. We have. There is no recognized international law at the present time to teach. But if there is any code established by the nations at large, we will take it up. We had it in the course until the present war.

Mr. Sisson. I imagine that an Army officer would need to know something about international law, especially if we had any differences with some of the other nations when an Army officer's action might be governed by international law.

Gen. MACARTHUR. We cover that in our military-law course. We have a code of instruction for officers in occupied territory and the laws of war; but the fundamental study of international law, going from Grotius to the present time, and the theory of international law we have eliminated.

Mr. Sisson. An Army officer, I take it, is not called upon to have as much knowledge of international law as a Navy officer who is constantly having to deal with the peculiar laws of various nations.

Gen. MACARTHUR. I think we have more use for it than a naval officer because we frequently have to administer occupied territory, more frequently than the Navy. The reason we have eliminated the study of international law is because what we had does not fit in with present world conditions. Conditions have been so changed by the result of the World War that we do not feel we are justified in continuing the study of international law at the present time.

Mr. ANTHONY. You only give the cadets a smattering of law at any rate?

Gen. MACARTHUR. As you can well understand, in six months that is all we can do.

Mr. ANTHONY. The Army depends upon its law department when it administers occupied territory?

Gen. MACARTHUR. To some extent; yes, sir.

MODELS, BOOKS, ETC., FOR MILITARY ENGINEERING DEPARTMENT.

Mr. ANTHONY. You are asking for \$6,000 for models, books, stationery, etc., for the department of practical military engineering. Do you spend all of that amount?

Gen. MACARTHUR. There is a balance at the present time on last year's appropriation of \$1,559.97. This is only January. That amount is generally used. There is a great amount of material necessary for camouflage work, revetments, trench work, improvised field fortifications, etc.; all that is covered in this item.

Mr. ANTHONY. Can not you get along without this increase? You are asking for models, instruments, books, etc., for the department of ordnance and gunnery?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. The same thing is true in regard to the increase of \$500 you are asking for in the item for the purchase of machine tools, etc., for practical instruction of cadets in wood and metal working?

Gen. MACARTHUR. Yes, sir.

MATERIALS FOR INSTRUCTION IN SIGNAL COMMUNICATIONS.

Mr. ANTHONY. You are asking for \$1,200 for the purchase of material for the instruction of cadets in signal communications. That is a new item.

Gen. MACARTHUR. That ought to stay in. We have completely reconstructed that course, based on the lessons of the World War. We have a Signal Corps detachment there now, and we teach communication.

Mr. ANTHONY. Why could not that Signal Corps detachment get its material from the supplies which the Signal Corps has on hand?

Gen. MACARTHUR. If they will supply us we will be very glad. I have found there is always a tendency to make us rely upon them entirely.

Mr. ANTHONY. And for that reason we often appropriate unnecessary money. We find that large supplies of material are purchased for all branches of the Army, and when it comes to the point where any institution connected with the Army needs a little of that material we find they are unable to pry it loose, and that leads to the purchase of unnecessary material.

Gen. MACARTHUR. That is true.

Col. TIMBERLAKE. We put in a requisition for that material. It comes back with the question, from what fund of the Military Academy will this be paid?

Mr. ANTHONY. Just what items will this \$1,200 cover?

Gen. MACARTHUR. That would cover the wire, the buzzer, etc., complete, the radio sets, and all the necessary equipment to run such sets, and, of course, we would have to have a number of instructors. For ordinary teaching purposes you have to have a certain deduction in the supply of instruments in order that they may go out to the various sections.

PURCHASE OF STATIONERY, BOOKS, ETC., FOR DEPARTMENT OF ENGLISH.

Mr. ANTHONY. In connection with the next item, for the purchase of stationery, books, etc., for the department of English and history, for which you ask \$1,500, on page 2 of the bill you ask for language, providing that the department of English and history shall hereafter be the department of English.

Gen. MACARTHUR. This item on page 36 should be for the department of English.

Mr. ANTHONY. And omit the word "history."

Gen. MACARTHUR. Yes.

COURSE OF LECTURES FOR MORE COMPLETE INSTRUCTION OF CADETS.

Mr. ANTHONY. For course of lectures for the more complete instruction of cadets you are asking \$2,500. You had an appropriation of \$1,200 for that item for the current year, so that you are asking for an increase of more than 100 per cent. What is the reason for that?

Gen. MACARTHUR. That need not be increased, although we would like to have it so. One of the greatest troubles about the institution is its isolation, and in order to keep the cadets in touch with the outer world we are increasing the number of lectures by distinguished outsiders. Many of those men, of course, come with no recompense, but I think that is a mistake.

Mr. ANTHONY. How many did you have of this class of men giving those lectures?

Gen. MACARTHUR. We have nine slated for this year. These are general lectures for the entire corps of cadets. This number does not cover the special lectures in the various branches.

Mr. ANTHONY. But you pay these general lecturers out of this fund?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. Will you put in the record the names of the lecturers and the amount of their pay?

Gen. MACARTHUR. Yes, sir. They are not paid. We offer them their expenses, which amount to about \$50, and an honorarium of \$50. But the honorarium is rarely accepted.

(The list above referred to is as follows:)

The following is list of lectures delivered so far this fiscal year:

November 13, Dr. Thos. W. Salmon.....	\$50. 00
November 6 and 20, Haven Emerson.....	100. 00
December 11, John H. Wigmore.....	153. 03
January 8, C. U. Clark.....	60. 00

The following lectures are scheduled for the balance of the fiscal year:

DATE, LECTURER, AND SUBJECT.

February 26: Dr. H. R. Seager, Economics.
 March 12: Prof. William O. Stevens, The Navy.
 April 2: Dr. David Kinley, Citizenship.
 April 23: Prof. A. G. Keller, Sociology.
 May 7: Charles C. Hyde, International Affairs.
 May 21: Prof. David Todd, Astronomy.
 March 23: Dr. John Johnston of Yale, Industrial Research.
 March 30: Prof. William McPherson, Ohio State University, Large Scale Production of Munitions.
 April 6: Dr. G. A. Richter, Berlin, H. H., Rockets and Flares.
 April 13: Dr. G. W. Gray, Chicago, Ill., Fuel, Motor and Lubricating Oils.
 April 20: Dr. W. Lee Lewis, Northwestern University, Toxic Gasses.
 Department of drawing will have two lectures not yet arranged for.

MAINTENANCE OF AUTOMOBILE TRUCK.

Mr. ANTHONY. For the maintenance of one automobile truck you are asking \$300. Why do you need that in view of the fact that you have a Motor Transport Corps detachment at West Point?

Gen. MACARTHUR. That truck was bought with West Point funds many years ago, and the Motor Transport Service will not repair it.

Col. TIMBERLAKE. It is a nonstandard machine. It is a Ford truck, and the Ford is not a standard article. We have no spare parts.

Mr. ANTHONY. It is difficult to get the spare parts?

Col. TIMBERLAKE. It is; yes. This is a truck that goes out the trail and the pipe line that furnishes water to West Point. The trail is about 10 or 12 miles long, and nothing else could get along the trail.

MISCELLANEOUS ITEMS AND INCIDENTAL EXPENSES.

COMMERCIAL PERIODICALS, STATIONERY, ETC., FOR TREASURER'S OFFICE

Mr. ANTHONY. Under the heading of miscellaneous items and incidental expenses you are asking for \$710 for commercial periodicals, stationery, etc., for the office of the treasurer, United States Military Academy. How much of that is spent for commercial periodicals?

Col. TIMBERLAKE. Last year there was spent \$18.65. The items of this paragraph were as follows:

For commercial periodicals, stationery, office furniture and supplies, adding machine, and for binding orders, circulars, etc., for the office of the treasurer, United States Military Academy.

Mr. ANTHONY. The greater part of that was spent for the adding machine?

Col. TIMBERLAKE. \$467 for the adding machine and \$100 for stationery.

Gen. MACARTHUR. That item could be cut down by the amount of the cost of the adding machine.

GAS, COAL, OIL, CANDLES, ETC., FOR OPERATION OF GAS PLANT

Mr. ANTHONY. For gas, coal, oil, candles, etc., for operation of gas plant you are asking \$40,000, with \$12,000 to be immediately available. That is an increase from \$15,000 to \$40,000. What is the reason for that big increase?

Col. TIMBERLAKE. The cost of gas coal within the past six months has increased from \$5.85 per ton to \$16.75 per ton, or over 200 per cent per ton. The cost of labor has increased approximately 50 per cent. This increase will also take care of the additional gas furnished in new buildings about to be put in operation. When the estimate was made that was the case. Since that time we have had to pay \$18 per ton for coal, but now we are paying \$12.69, and it is almost impossible to get it at that. That is a very cheap grade of coal. The last test of this gas coal coming out of the mine gave us only 3.2 cubic feet of gas to a pound of coal, whereas we have been getting coal that would give us 5 feet. So we have to use more coal and at a higher price.

Mr. ANTHONY. What is the necessity for maintaining a gas plant there?

Col. TIMBERLAKE. There are a good many of the buildings that have not electric light, and which are lighted by gas. A good many of them do a lot of heating and cooking by gas. The buildings have not been equipped with coal ranges.

Mr. ANTHONY. That is a convenience. Would it not be more economical, instead of maintaining duplicate lighting plants, to have one electric plant furnish the light?

Col. TIMBERLAKE. That was taken up about five years ago by the Committee on Military Affairs, and I made an estimate at the time, showing how much it would cost to do away with this gas plant, but the committee never saw fit to go further with it.

Mr. ANTHONY. Are all of your quarters there equipped to use gas for fuel?

Col. TIMBERLAKE. No, sir; some of them have no coal ranges for cooking. They just have gas ranges.

Mr. ANTHONY. The bulk of them are using gas ranges?

Col. TIMBERLAKE. About half of them. The married officers' quarters that we are building have gas-equipped kitchenettes. The coal ranges are too large for those kitchenettes.

Mr. ANTHONY. Are you using any electricity for fuel?

Col. TIMBERLAKE. No, sir. Electric heating and cooking would be very expensive.

Mr. ANTHONY. If you do not have to pay \$12 a ton for gas coal you will need this amount of \$40,000, will you?

Col. TIMBERLAKE. We need 2,200 tons of gas coal per year—that is, of this inferior coal. We have heretofore been getting along with 2,000 tons. But with this inferior coal we have to use 2,200 tons, and that much coal at \$12 a ton amounts to \$26,400.

Mr. ANTHONY. Why do you want \$12,000 immediately available?

Col. TIMBERLAKE. That can be cut out. In fact, if that item is cut down to \$30,000 I think it would be enough. I am satisfied that the price of the gas coal is going to come down.

Mr. ANTHONY. The way the item reads now it is for gas and coal, there being a comma after the word "gas." It ought to read "for gas coal," and the comma between the words "gas" and "coal" should come out?

Col. TIMBERLAKE. Yes, sir.

REPAIRS AND NEW INSTALLATION AT GAS PLANT.

Mr. ANTHONY. You are asking for \$14,000 for repairs and new installation at gas plant which are absolutely essential. That is a new item.

Col. TIMBERLAKE. We are going to ask you to cut that out. The gas plant is now below its capacity—its daily consumption—but we will make it do for another year.

WATER PIPE, PLUMBING, AND REPAIRS.

Mr. ANTHONY. For water pipe, plumbing, and repairs you are asking \$14,000, of which \$2,000 shall be immediately available. You had an appropriation of \$8,000 for the current year for this item.

Col. TIMBERLAKE. We will be satisfied with the old amount.

Mr. ANTHONY. And do you not need any immediately available?

Col. TIMBERLAKE. No, sir.

Mr. ANTHONY. And the same thing is true in connection with the item for labor and material for cleaning and policing public buildings, for which you ask \$10,000, as against an appropriation for the current year of \$6,620?

Gen. MACARTHUR. The old amount will be sufficient.

SUPPLIES FOR RECITATION ROOMS.

Mr. ANTHONY. You are asking for \$5,000 for supplies for recitation rooms not otherwise provided for and for renewing and repairing furniture in some. For the current year you had an appropriation only \$1,000 for this purpose. Is there any reason for that increase from \$1,000 to \$5,000?

Gen. MACARTHUR. No; we can go back to the old amount. It was for the purpose of replacing a lot of blackboards, but we will make them do for another year.

INCREASE AND EXPENSE OF LIBRARY.

Mr. ANTHONY. You are asking for \$7,200 for the increase and expense of the library. That is the same amount you had last year.

Gen. MACARTHUR. The same amount.

Mr. ANTHONY. Have you expended all that amount during the current year?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. What do you use that for principally, to buy books?

Gen. MACARTHUR. Yes, sir. The itemized statement of that expenditure is as follows:

Increase and expense of library, namely: For purchase, preservation, care, binding and repair of books, periodicals, pamphlets, maps, pictures, and manuscripts; purchase of furniture, cases, stationery, and fittings; for expenses of making military manuscripts in other libraries, and for contingent expenses not otherwise provided for; purchases to be made in open market on the written order of the commanding officer, \$7,200.

Increase and expense of library	\$7,200. 00	Muslin.....
Books.....	5,085. 04	Ends for hall runner.....
Stationery.....	565. 28	Typewriter.....
Transportation.....	1. 05	Mats.....
Cleaning material.....	9. 50	Flashlights.....
Matches.....	6. 70	Paper towels.....
Repairing clock.....	5. 00	Subscriptions.....
Cotton.....	3. 30	Labor.....
Lily cups.....	7. 45	
Hall runner.....	64. 20	

Mr. ANTHONY. You must have a pretty big library by this time.

Gen. MACARTHUR. It is a fairly big library.

Mr. Sisson. Does this \$7,200 cover all the expenses except the purchase of books?

Gen. MACARTHUR. It covers all except the salary of the librarian. The item has been a continuing one for many years, and we have a very acceptable library there now.

CONTINGENT FUND.

Mr. ANTHONY. The next item is for the contingent fund expended under the direction of the academic board, and you are asking for \$3,000 for instruments, books, repairs to apparatus, and incidental expenses not otherwise provided for. Is that necessary?

Col. TIMBERLAKE. It was all spent last year, and all of it but \$3.95 was spent for diplomas and certificates. The \$3.95 was spent for transportation.

Mr. ANTHONY. Why do you need this proviso: "*Provided, That all technical and scientific supplies for the departments of instruction of the Military Academy shall be purchased by contract or otherwise, as the Secretary of War may deem best*"? If you do not have that in the bill you would have to buy them all by contract?

Col. TIMBERLAKE. We would have to advertise.

Mr. ANTHONY. This means that you can buy them all on open orders?

Col. TIMBERLAKE. Yes, sir.

Mr. ANTHONY. They are small amounts when they are expended?

Gen. MACARTHUR. Yes, sir.

UPKEEP OF BAND.

Mr. ANTHONY. For the purchase and repair of instruments and general upkeep of the United States Military Academy Band you are asking for an increase of \$500.

Gen. MACARTHUR. The old amount will be sufficient.

Mr. Sisson. Do you want the new language you have in that item? The words "and repair" and the phrase "and general upkeep of the United States Military Academy" are new language.

Gen. MACARTHUR. We would like to have that, because we do not think the old language is broad enough.

Mr. ANTHONY. What comes under the head of general upkeep that would not come under the head of purchase and repair of instruments?

Gen. MACARTHUR. This paragraph was formerly itemized as follows:

Purchase of instruments for band and repairs to same: For purchase of reeds, pads strings, and other materials necessary for brass, wood, wind, and string instruments; for purchase of music stands and other equipments; for purchase of music for military band and orchestra and for extra parts; and for contingent expenses not otherwise provided for; all to be purchased in open market on order of superintendent, \$1,500.

Last year they cut the wording down to the purchase of instruments.

Col. TIMBERLAKE. That would not let us purchase music for the band.

Mr. ANTHONY. If we were to put the word "music in there" would that not be sufficient? Under the head of general upkeep you could buy anything you wanted.

Gen. MACARTHUR. "Purchase and repair of instruments, and purchase of music" would be all right.

Mr. Sisson. General language, especially for the purchase and repair of instruments makes rather peculiar language in an appropriation bill. If you simply say "care of instruments and maintenance" it seems to me that would cover it.

Col. TIMBERLAKE. If it was made to read "for maintenance of the United States Military Academy Band," it would cover it, I think.

Mr. Sisson. That would enable you to get music and maintain the band.

REPAIRS AND IMPROVEMENTS TO THE LAUNDRY.

Mr. ANTHONY. For repairs and improvements to the laundry machinery, etc., which may be expended without advertising, and to be immediately available, you are asking for \$15,325. You had \$35,000 during the current year.

Col. TIMBERLAKE. That is for the completion of the installation of machinery in the new laundry.

Mr. ANTHONY. Is the new laundry in operation?

Col. TIMBERLAKE. Yes, sir; and we are doing 100 per cent more laundry than we anticipated, because we now use the laundry of the enlisted men, and the quartermaster general has undertaken to furnish free laundry for enlisted men, so we do this laundry at the cost price of operation to the quartermaster general, and he pays that to the treasurer.

Mr. ANTHONY. What do you do with the funds you receive from the quartermaster general?

Col. TIMBERLAKE. We pay for the labor; we pay for running the laundry.

Mr. ANTHONY. And you do not make any profit on it?

Col. TIMBERLAKE. No, sir.

Mr. ANTHONY. Do you need more machinery for the laundry?

Col. TIMBERLAKE. Yes, sir. There is some machinery that was planned for it; we bought most of it last year from the \$35,000. but because of the increased prices we did not get as much as we needed.

Mr. Sisson. Will this \$15,325 complete the installation of the machinery and make the plant complete?

Col. TIMBERLAKE. I understand from the treasurer, who runs the laundry, that this will complete the installation of machinery.

Mr. Sisson. I wish you would investigate that question, as to whether that \$15,325 will complete the laundry.

Col. TIMBERLAKE. It will, or else he would have asked for \$35,000.

Mr. Sisson. I would rather have the hearing specific on that point and not have any doubt about it.

Col. TIMBERLAKE. Yes, sir; I will get that information.

NOTE.—This will complete the installation.

Mr. ANTHONY. At nearly every big abandoned Army camp there is a surplus of laundry machinery. Have you made any attempt to get any of that surplus for use in your laundry?

Col. TIMBERLAKE. We did get some of that from Camp Upton, but we could not work it in with our machinery. It would not fit with the machinery we have.

Mr. ANTHONY. Did you try to get any laundry machinery that has been declared surplus?

Col. TIMBERLAKE. As I say, we have gotten some from Camp Upton, but we can not use it. The only thing we have been able to use is a mandril. That we have installed and have in operation.

Mr. ANTHONY. What kind of machinery do you want to purchase? Do you want to increase the capacity of your plant?

Gen. MACARTHUR. There are 10 more presses for laundering uniforms needed. That is one item.

Col. TIMBERLAKE. Part of that item is to complete the installation of a ventilating system which has already been started.

Mr. ANTHONY. What is the ventilating system going to cost?

Col. TIMBERLAKE. It is going to cost about \$3,000.

Mr. ANTHONY. What will the 10 presses cost?

Col. TIMBERLAKE. About \$500 each, I think.

Mr. ANTHONY. You might itemize the details under that paragraph.

Col. TIMBERLAKE. Yes, sir.

For repairs and improvements to laundry machinery and apparatus in the cadet laundry, etc., \$15,325, as follows:

10 presses.....	\$5,325
1 Cascade washer.....	4,805
Ventilators.....	3,095
Panel board and circuits.....	2,100

Total.....	15,325
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Mr. Sisson. If this \$15,325 is appropriated this item will disappear from the bill, will it not? There is no maintenance?

Col. TIMBERLAKE. Not entirely; there will be a small amount necessary for ordinary repairs.

Mr. Sisson. Then you do not do the laundry of the boys at cost, but at less than cost, if you do not maintain your plant out of that revenue?

Gen. MACARTHUR. The cadets pay for the whole thing.

Mr. Sisson. I understand that. But in making up your charge for laundry, the small amount necessary for maintenance ought to be charged in the laundry account against the cadets.

Col. TIMBERLAKE. The cost of this machinery is charged.

Mr. Sisson. I am not speaking of that.

Col. TIMBERLAKE. It is the cost of operation only.

Gen. MACARTHUR. The cadets pay for the cost of operation. They could pay for the maintenance.

Mr. Sisson. It would be a small item each year. The amount to keep the plant in repair and pay for the repair of small breakages would be a very negligible item. It would be a very small expense to each cadet. We are not trying to amortize the plant, but are trying to pay the expenses of operation, so this item for maintenance ought to be distributed among the people who get the benefit of the laundry.

Gen. MACARTHUR. That is perfectly logical, and this item might disappear.

REPAIR AND PURCHASE OF COOKING UTENSILS FOR CADET MESS.

Mr. ANTHONY. Do you need an increase of \$7,085 in the item for the repair and purchase of cooking utensils, chairs, etc., for the cadets' mess, to be expended without advertising, to be immediately available.

Gen. MACARTHUR. The refrigerating plant is too small and has practically broken down. If we were going to build a new mess hall we would not need it. I am willing to cut that out on the chance that you are going to allow us to build a new mess hall.

Mr. ANTHONY. Your present plant will last a year or two?

Gen. MACARTHUR. Yes, sir.

Mr. Sisson. Then you only want the \$3,000 left in the item?

Gen. MACARTHUR. Yes, sir.

POLICING OF BARRACKS AND BATHHOUSES.

Mr. ANTHONY. I suppose we can put the item for the policing of barracks at the old figure?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. What does the word "policing" mean?

Gen. MACARTHUR. That is for the hire of civilians to do cleaning and for the purchase of materials to do the cleaning with

FURNITURE FOR CADETS' BARRACKS.

Mr. ANTHONY. Do you need \$20,000 for the next item this year?

Gen. MACARTHUR. Yes, sir; we are gradually replacing the inflammable wooden lockers with steel lockers.

Mr. Sisson. How many lockers do you buy out of that?

Gen. MACARTHUR. Last year we spent \$17,868.

(Itemized estimate follows:)

300 cadet chairs, at \$6	\$	1,800
Repairs to same		
90 lockers, steel, cadet, at \$105		9,450
Repairs to same		
50 tables, steel, cadet, at \$50		2,500
100 thermometers, cadet rooms, at \$1		100
Painting cadet beds ($\frac{1}{2}$ per year)		
Painting cadet washstands ($\frac{1}{2}$ per year)		
Window shades for new barracks		
Furniture and fixtures, new cadet headquarters (commandant's office, assistant commandant, officer in charge, battalion commanders, clerks, etc.)		
Furniture and fixtures, assembly room		
Total		23,850

Mr. Sisson. How much longer will it take for you to install all them?

Gen. MACARTHUR. One more year.

Mr. Sisson. This \$20,000 will complete the installation?

Gen. MACARTHUR. Practically; yes, sir.

Mr. ANTHONY. What about the item for the repair and upkeep of the rifle range?

Gen. MACARTHUR. You can cut that out.

Mr. ANTHONY. And the next item, too?

Gen. MACARTHUR. Yes.

MAINTENANCE OF CHILDREN'S SCHOOLS.

Mr. ANTHONY. Why do you need an increase for the maintenance of the children's school?

Gen. MACARTHUR. The officer in charge reports as follows on:

For maintaining the children's school, etc., \$7,970; increase of \$1,700 submitted.
The estimate of funds asked for is based on the following item of expense:

(a) Salary of one principal		
(b) Salary of four grade teachers		
(c) Salary of janitor at cadet chapel		
(d) Purchase of books, stationery, etc.		
(e) Repairs to school building and equipment		
Total		

Item (a) is \$240 more than the salary to be paid next year and is necessary to secure the present principal or secure another equally efficient. The amount of this is the same as that of the increased compensation to civilian employees; if extra compensation is discontinued it will be impossible to keep the principal teachers, unless the loss is offset by the increase herein asked. Even if the compensation be continued, the salaries here mentioned will not be excessive.

Item (b) is an increase of \$960 over the salary to be paid the four grade teachers next year and is necessary for the same reasons as stated under item (a). The amount

estimated will make the salaries of these positions compare favorably with those paid in similar positions elsewhere, but not beyond them, and will enable the school to retain experienced teachers, which has been impossible in the past.

Item (c) is the same as last year.

Item (d) is an increase of \$200 over that estimated last year. It is necessary. The amount available for this purpose has been inadequate for a number of years. A great number of books are nearly worn out and need replacing or repairing.

Item (e) is \$300 more than last year and is necessary. The amounts heretofore appropriated have been found entirely insufficient for repairs urgently needed.

Mr. ANTHONY. How many children do you have in that school?

Gen. MACARTHUR. I think we have about 350. That includes children of officers and enlisted men.

Mr. ANTHONY. And the civilians?

Gen. MACARTHUR. Only civilians living on the post. They would be accepted.

Mr. Sisson. Is it the policy to maintain the school on this post at the expense of the Federal Government?

Gen. MACARTHUR. That has been the policy of the Government for years. It has been the policy for many years on all reservations that do not have school facilities established in the local community.

Mr. ANTHONY. Are the teachers in this school getting the bonus?

Gen. MACARTHUR. They do at the present time. This increase is included here to meet the possibility of the bonus being cut out.

Mr. Sisson. Do these people get their homes furnished free?

Gen. MACARTHUR. No, sir.

Mr. Sisson. They have to rent their own homes?

Gen. MACARTHUR. They have to rent their own homes; yes, sir. They live in the village of Highland Falls, which is contiguous to West Point.

INSTALLATION OF ELECTRIC LIGHTS IN BASEMENT OF CAVALRY BARRACKS.

Mr. ANTHONY. You ask for \$500 for installing electric lights in the basement of the cavalry barracks, to be used for a storeroom.

Gen. MACARTHUR. That can be cut out.

INSTALLING BATHTUBS AND BOILERS IN ENLISTED MEN'S QUARTERS.

Mr. ANTHONY. The next item is for installing bathtubs and boiler in 47 sets of enlisted men's quarters, for which you ask \$8,357.54.

Gen. MACARTHUR. That can be cut out.

Mr. Sisson. What are those boys going to do for bathtubs?

Gen. MACARTHUR. They have portable tubs. This was to improve the general conditions and raise the morale, but with conditions existing as at the present time, it is possible to cut that out.

FOR WOODEN STEPS, ETC., CADETS HOSPITAL.

Mr. ANTHONY. You want \$250 for new wooden steps, with hand-rail, from the sidewalk to the entrance to the cadets hospital.

Gen. MACARTHUR. That should be retained. The present steps are practically worn out. They are put up there because there is a rather steep incline leading to the hospital, and invalids going up there without those steps would probably suffer casualties.

Mr. ANTHONY. The present entrance is an incline?

Gen. MACARTHUR. Yes, sir; and in winter weather we superimpose upon that entrance wooden steps.

Mr. ANTHONY. You did not have that last year.

Gen. MACARTHUR. This is a new item.

Col. TIMBERLAKE. The old steps are about gone.

PAINTING.

Mr. ANTHONY. You want \$600 for painting two coats—walls, doors and ceiling of rooms third floor, cadet hospital, kitchen, dining room hallway, and three squad rooms.

Gen. MACARTHUR. I would like to retain that.

Mr. ANTHONY. That is in the old hospital?

Gen. MACARTHUR. In the old cadet hospital; yes, sir.

Mr. Sisson. Is that simply for the purchase of material and will the work be done by the labor at the post?

Gen. MACARTHUR. Yes.

Mr. Sisson. That is for the preservation of the building.

Gen. MACARTHUR. Not only for preservation but for sanitation.

Mr. Sisson. The principal item, of paint, not only improves the looks of the building but it preserves the material.

Gen. MACARTHUR. Yes, sir; on the outside.

REPAIR OF CEILING OF WHEATON WARD, CADET HOSPITAL.

Mr. ANTHONY. You are asking for repair, paint, and calomine ceiling of Wheaton ward, cadet hospital, damaged by leak in roof, \$200.

Gen. MACARTHUR. That should be retained.

REMOVAL OF AIR DUCTS, ETC.

Mr. ANTHONY. You are asking for \$200 for removing old air ducts in the basement and repairing the floor in the cadet hospital.

Gen. MACARTHUR. That should be retained.

Mr. ANTHONY. You are asking for \$150 for repairing and renewing rain conductors around buildings at cadet hospital.

Gen. MACARTHUR. That should be retained.

Mr. Sisson. Who makes these estimates?

Gen. MACARTHUR. This estimate was made by the chief surgeon; it is checked in the office of the quartermaster and finally passes over my desk.

Mr. Sisson. He tells you what he wants; but who figures out the amount necessary?

Gen. MACARTHUR. The quartermaster.

PAINTING, SOLDIERS' HOSPITAL.

Mr. ANTHONY. You are asking for \$2,500 for painting the walls, ceiling, and woodwork of the interior and annex buildings; ceiling of operating and dressing rooms to be white enamel or other durable substance at soldiers' hospital.

Gen. MACARTHUR. That should be retained.

Mr. ANTHONY. The soldiers' hospital is different from the cadet hospital.

Gen. MACARTHUR. Yes, sir; that is at the north end of the reservation. As it stands now the rooms in that building are unsightly and unfit for the purpose.

Mr. ANTHONY. Is that one of the permanent buildings?

Gen. MACARTHUR. That is one of the permanent buildings, but nothing has been done with that building for six years.

Mr. Sisson. Is it necessary to use white enamel? That is a very expensive material?

Gen. MACARTHUR. That is the custom, and it is the sanitary practice in all hospitals.

MOUNTING OF TROPHIES.

Mr. ANTHONY. You are asking for \$1,000 for the care, upkeep, and mounting of trophies at the United States Military Academy.

Gen. MACARTHUR. There are a great many trophies, as a result of the World War, being shipped to the Military Academy. Many of them are so heavy that they have to have concrete bases. We have no fund to do that. We supply the labor for this, but need money to buy the material.

Mr. ANTHONY. How many trophies have been sent to West Point?

Gen. MACARTHUR. They are stacked up. I suppose there are from 70 to 100 German cannon. Col. Timberlake says that 59 came in one shipment. We have one of the 15-inch mortars.

Mr. ANTHONY. You want \$2,500 for the installation of 143 blackboards in classrooms.

Gen. MACARTHUR. That can be cut out.

Mr. ANTHONY. Have you no blackboards in the new classrooms?

Gen. MACARTHUR. Yes, sir; but they are practically worn out. We will make them do for another year.

PURCHASE AND REPAIR OF FIRE-EXTINGUISHING APPARATUS.

Mr. ANTHONY. You are asking for \$2,000 for the purchase and repair of fire-extinguishing apparatus. That is an increase of \$1,000.

Gen. MACARTHUR. Apparently that ought to be retained at the new figures.

Mr. ANTHONY. Did you have a fire there recently?

Gen. MACARTHUR. Yes, sir; and we lost about 1,000 feet of hose.

Mr. ANTHONY. What was the fire?

Col. TIMBERLAKE. It was in a stable at the hospital that is being used as a garage.

Mr. ANTHONY. How much property was destroyed?

Gen. MACARTHUR. About \$12,000 worth.

Mr. ANTHONY. Was that fire-fighting apparatus efficient at the time of that fire?

Col. TIMBERLAKE. The fire-fighting apparatus was all in that building and we were fortunate to get it out; in fact, we did not get it all out.

Mr. ANTHONY. You want to replace some of the hose?

Col. TIMBERLAKE. Yes, sir. We had converted the stable into a fire-engine house and the man was fortunate to get the fire engine out.

Mr. Sisson. Do you have a fire company there?

Col. TIMBERLAKE. No, sir. We have a couple of fire engines with a volunteer force. We have three men who stay with the engines and take them out at any time.

Mr. ANTHONY. Are they modern motor machines?

Col. TIMBERLAKE. Yes, sir.

Mr. ANTHONY. You get your pressure from your reservoir on the hill?

Col. TIMBERLAKE. We get pressure up to about 50 pounds and we get pressure from the engines up to about 150 pounds on each one of the fire engines.

Mr. ANTHONY. Under the heading of buildings and grounds you ask for \$1,500 materials and cases for ordnance museum in the headquarters building.

Gen. MACARTHUR. That is an old item.

Mr. ANTHONY. You use that sum every year?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. The necessity for the continuance of that item exists because you have to take care of the trophies?

Gen. MACARTHUR. They are coming in all the time.

BUILDINGS AND GROUNDS.

CASES, MATERIALS, ETC., FOR ORDNANCE MUSEUM.

Mr. ANTHONY. Do you use any of that for the trophy work in the ordnance museum?

Gen. MACARTHUR. I do not think we do. We do not have a balance in this item.

Col. TIMBERLAKE. Most of it is used in the repair of battle flags. We have an expert needlewoman there for that work. We have flags as far back as the Revolutionary flags. Some of them are going to pieces, and it requires most expert work to put them in repair so that they will remain in shape. Then they are put in glass cases that are practically air tight in order to preserve them afterwards.

Mr. Sisson. Do you need this \$1,500 every year?

Col. TIMBERLAKE. Yes, sir.

Mr. Sisson. It would seem there would be a time when you would finally complete the work.

Col. TIMBERLAKE. No, sir; there is an enormous number of them.

Mr. Sisson. Some of these women do marvelous work in replacing the old texture with new texture and when the work is complete there is practically none of the old texture left, but they do preserve the color of the flag so you would scarcely know they had replaced it with new material. They do marvelous work.

Col. TIMBERLAKE. We spent \$1,085 for labor last year and \$ for rifle racks in order to put some of the modern rifles in position.

Mr. ANTHONY. For repairs to the ordnance laboratory, etc., you are asking \$250. Does that take care of the ordinary wear and tear on the buildings?

Col. TIMBERLAKE. Yes, sir.

REPAIRS AND IMPROVEMENTS TO CADET STORE BUILDING.

Mr. ANTHONY. For general incidental repairs and improvements to the cadet store building you ask for an increase from \$1,000 to \$3,500.

Gen. MACARTHUR. We can let that stand at the present figure of \$1,000.

Mr. ANTHONY. You do not need the new language there, do you?

Gen. MACARTHUR. No, sir.

Mr. ANTHONY. You ask \$9,041 for repairing and remodeling the cadet rest house.

Gen. MACARTHUR. That can be cut out.

WATERWORKS.

Mr. ANTHONY. For waterworks you ask for \$4,000 instead of \$3,000.

Gen. MACARTHUR. That can be cut down. It is on the same basis as all the other items.

Mr. Sisson. There is a very small item here "for repair and upkeep of quarters of the staff sergeant, first class, Medical Department, \$50."

Mr. ANTHONY. I passed that because manifestly it is for repairs to the building.

Mr. Sisson. They want some new language in that "Staff sergeant."

Gen. MACARTHUR. They have changed the name. It is the same noncommissioned officer but the designation has been changed in the reorganization.

Mr. Sisson. Now, the waterworks item goes back to \$3,000.

Gen. MACARTHUR. \$3,000; yes, sir.

Mr. ANTHONY. Going back to the item just mentioned by Mr. Sisson for repair and upkeep of quarters of the staff sergeant, first class, Medical Department; is a staff sergeant a first-class rating?

Gen. MACARTHUR. I am not certain of that, sir. That may be an error in the nomenclature.

Mr. ANTHONY. Would it be proper, then, to drop out the words "first class" and just let it stand at "staff sergeant"?

Col. TIMBERLAKE. Yes, sir; the "first class" should go out. That should be "staff sergeant, medical department." Sergeant first class has become a staff sergeant under the reorganization.

Mr. ANTHONY. I notice on nearly every building on the post you are allowing from \$75 to \$250, or a few hundred dollars, for repairs. Do you find those repairs are absolutely necessary in each case specified in the bill?

Col. TIMBERLAKE. They have been so. There are always minor repairs to be made on any building.

Mr. ANTHONY. And you are just assuming that you will use that much every year?

Col. TIMBERLAKE. If we do not use it, it comes back. Take that hospital sergeant first class, Hospital Corps.

Gen. MACARTHUR. That is not based on any estimate of the work to be done, to answer your direct question. That has been found to be a more or less accurate rule of thumb to go on. If the repairs are not made, of course the money is checked back into the Treasury.

FOR REPAIRS AND RESTORATION OF RETAINING WALLS ALONG POPALOPEN PIPE LINE.

Mr. ANTHONY. For repairs and restoration or retaining walls along the line of the Popalopen pipe line, you want \$1,000 more. Is that necessary?

Gen. MACARTHUR. No, sir.

Mr. ANTHONY. But you want to continue the work?

Mr. Sisson. When will that be finished?

Col. TIMBERLAKE. That is under the military engineer. This line runs along the side of the hills there, Mr. Chairman.

Gen. MACARTHUR. This is just the general upkeep.

Col. TIMBERLAKE. He is rebuilding and cementing this wall. The pipe line runs along under a rough-built wall and now he is cementing so as to hold it.

IMPROVEMENTS TO ROADS AND GROUNDS, ETC.

Mr. ANTHONY. For carrying on the development of the general plan for improvements to roads and grounds. You have been asking \$3,000 a year and now you are asking for \$4,000.

Gen. MACARTHUR. \$3,000.

Mr. ANTHONY. Do you need \$3,000?

Col. TIMBERLAKE. Yes, sir.

Mr. ANTHONY. Is this carrying out a general plan for improvements?

Gen. MACARTHUR. Yes, sir.

Mr. Sisson. Now, again, in all projects of this kind my experience has been unless something is said about how much you are going to spend, you can continue it indefinitely, and the landscape gardener or the party who has charge of the development ought to have a place where he could finally complete it. For instance, the repair and restoration of retaining wall. Now the very language shows that you are endeavoring to repair and restore the wall. When he gets it repaired and restored that ought to be eliminated.

Gen. MACARTHUR. Yes, sir.

Mr. Sisson. Then for carrying on the development of the general plan for improvements to walls and grounds. The grounds were completed some time, but of course you have to maintain them.

Col. TIMBERLAKE. Yes, sir. You know by expending small amounts of this kind each year you do not get much more than maintaining sections you have already done.

Mr. Sisson. That is probably true.

Col. TIMBERLAKE. When you get an amount of this size, you can barely maintain what you have already done. That improvement in the building of roads over the mountains on the plans laid out by the landscape architects, Olmstead Bros., and approved by the War Department in 1906 or 1908, and this appropriation has been going on and up until about two years ago, I think it was \$2,000, and because of increased cost of labor in the last couple of years it was increased to \$3,000, but they are doing mighty little development now. It is in upkeep just what they have developed heretofore.

REPAIRS TO STEAM HEATING SYSTEM IN CADET MESS.

Chairman ANTHONY. For necessary repairs and replacements in steam-heating system and steam line in cadet mess to be expended without advertising, \$1,300. Is that carrying out a general line of improvement or upkeep and repairs?

Col. TIMBERLAKE. Repairs.

Gen. MACARTHUR. Normal repairs?

Mr. ANTHONY. You say "to be expended without advertising." If you did not have that in there, it means you would have to let it by contract?

Col. TIMBERLAKE. Yes, sir.

Mr. ANTHONY. And you propose to do that work with your own labor?

Gen. MACARTHUR. Yes, sir.

Col. TIMBERLAKE. We have got to get some machines or parts of the same machine, and if it costs more than \$500 we have to advertise.

Mr. ANTHONY. Why would the repairs to that steam line necessitate the expenditure of this amount of money? With an ordinary steam plant in a building you would not have to continually repair it.

Col. TIMBERLAKE. Last year there were:

Gaskets.....	\$16. 50	Cement.....	\$37. 50
File set.....	7. 55	Orifices.....	110. 80
Tools.....	35. 40	Pipe covering..	504. 00
Valve.....	28. 92	Transportation.....	65. 63
Traps.....	65. 20	Labor.....	428. 50

Mr. ANTHONY. That is what you expended on it?

Col. TIMBERLAKE. Yes, sir.

Mr. ANTHONY. What are you doing now, proceeding to cover all your steam pipes with asbestos?

Col. TIMBERLAKE. Yes, sir.

Mr. ANTHONY. That is not completed yet.

Col. TIMBERLAKE. It is completed, but accidents happen to those things all the time. It is a very old system, Mr. Chairman, and we are trying to make it hold together without replacement until we get a new mess hall, and its upkeep is very expensive.

Mr. ANTHONY. Does your steam heat come from a central plant at West Point?

Col. TIMBERLAKE. Yes, sir, but this is for the refrigerator system, is it not?

Mr. ANTHONY. Steam heating system, line 15, page 42.

Col. TIMBERLAKE. Yes; the steam comes from the main power house.

Mr. ANTHONY. For this is just for repairs to steam pipes?

Col. TIMBERLAKE. Yes, sir. Valves wear out and gaskets. You have to replace the gaskets.

Mr. ANTHONY. Have you finished covering the pipes with asbestos, which seemed to be the principal item of expenditure during the current year?

Col. TIMBERLAKE. I do not know just exactly. I think that usually was in connection with refrigerating plants, because we had a very serious accident to that plant about a year ago. A gas pipe got to leaking in there and we had an explosion right in our refrigerators, and we had to tear out practically all the pipes we had then

Mr. Sisson. Is the refrigerating plant connected with the steam heating system?

Col. TIMBERLAKE. Yes, sir; the heat for the building comes from our main power plant.

Mr. Sisson. When repairing your refrigerating plant do you repair that under the same heading that you would repair steam heating plants? Are they so intimately connected that the items can be interchanged?

Col. TIMBERLAKE. Well, very frequently when something is connected with the refrigerating plant the packing and everything is so connected together there we have to tear out one to get to the other in making repairs. It is very congested down under the basement there. It has been put in from time to time and never was laid out originally with any definite plan. This has been added and that has been added to fit the best they could.

Mr. Sisson. All right; that is all.

REPAIRS TO CADET MESS BUILDING.

Mr. ANTHONY. For repairs to the cadet mess building, to be expended without advertising and to be immediately available. You are asking for \$8,000 against \$4,265 for the current year?

Gen. MACARTHUR. Two thousand dollars of that is for the general upkeep of the building.

Mr. ANTHONY. What is the necessity for making extensive repairs?

Gen. MACARTHUR. Two thousand five hundred dollars of that is for painting, which can be cut out. The other \$3,500 is for tile. The floors are breaking in; the tiles are broken.

Mr. ANTHONY. It is for the repair of the old tiles?

Gen. MACARTHUR. It is to tile the milk room, which is estimated at \$3,000. To replace the tile in north pantries, estimated \$50; to replace tile in south pantries, estimated \$50; to replace tile in mess room, estimated \$50.

Mr. ANTHONY. If we are going to build a mess hall would it be better not to make these repairs?

Gen. MACARTHUR. Yes, sir; if you are going to authorize a mess hall that could be cut down to \$1,000.

Mr. Sisson. Instead of \$8,000?

Gen. MACARTHUR. Instead of \$8,000.

Mr. CRAMTON. You are going to save nearly enough, General, to build that mess hall?

Gen. MACARTHUR. These are all little items.

REPAIRS AND IMPROVEMENTS TO WEST POINT ARMY MESS BUILDING.

Mr. ANTHONY. For repairs and improvements to the West Point Army Mess Building, including supplying and renewing furniture and fittings. You are asking for \$3,500 as against \$2,500?

Gen. MACARTHUR. That can be cut down to \$2,500.

Mr. ANTHONY. What is the West Point Army Mess Building?

Gen. MACARTHUR. The West Point Army Mess Building is a Government building in which is run a general mess for all officers and visitors at the garrison. It is the mess at which the bachelors eat. The bachelor building has no cooking facilities. The bachelors

was erected by the Government and as far as the furnishings are concerned, has been kept up by the Government.

Mr. ANTHONY. That is not the old hotel?

Gen. MACARTHUR. No, sir; this is the West Point Army Mess, the so-called club.

Mr. ANTHONY. It is really the club?

Gen. MACARTHUR. It is the club, yes, sir. It is not known under that name. It is the West Point Army Mess.

Mr. ANTHONY. But it is a central mess establishment for the officers at West Point?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. Such as is maintained in many other posts?

Gen. MACARTHUR. Yes, sir; all posts.

Mr. ANTHONY. And the mess itself is maintained by the men?

Gen. MACARTHUR. The mess itself is, of course, maintained by the residents who eat there, and there are dues levied upon everyone who is a member.

Mr. ANTHONY. The Government maintains the building?

Gen. MACARTHUR. The Government maintains the building and the fittings of the building.

CADET BOATHOUSE AND BOATS.

Mr. ANTHONY. I think you are making a cut on the appropriation for the cadet boathouse and boats?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. You need \$750 though for new boats?

Gen. MACARTHUR. Yes, sir; that is the idea exactly. That item will disappear entirely next year.

GRADING AND PAVING, SOUTH CADET BARRACKS.

Mr. ANTHONY. Grading and paving the area of south cadet barracks, \$15,000.

Gen. MACARTHUR. The new south barracks will be ready for occupancy the 1st of September, but no appropriations have been made for grading and paving in front of them.

Mr. ANTHONY. What do you want to do, pave them with concrete?

Gen. MACARTHUR. Yes, sir; concrete blocks and slabs.

Col. TIMBERLAKE. The ground now is rough ground there and extends two to three feet higher than the rest of the area of the old barracks. That has got to be cut down and then paved with concrete, also got to have drains put in to get the water out. That is where all the class formations go on outside, out in this area.

Mr. CRAMTON. Can you cut the item some with new labor costs?

Col. TIMBERLAKE. I do not think so; I do not think that is a cent too low.

Mr. SISSON. Who made this estimate?

Col. TIMBERLAKE. I did, sir. That is, the superintendent of construction made it under my direction and I checked it up.

Mr. SISSON. How much grading will you have to do there? Over what area and to what depth?

Col. TIMBERLAKE. It varies from nothing up to three feet in rock.

Mr. Sisson. And how many cubic feet of grading will you have to do?

Col. TIMBERLAKE. Well, that building——

Mr. Sisson. Cubic feet or cubic yards, would probably be better.

Col. TIMBERLAKE. That is about 300 feet long, about 75 in front——

Mr. Sisson. Well, in making up your estimate, of course, you will have to know something about the number of cubic yards to be moved in order to make the estimate.

Col. TIMBERLAKE. Yes, sir; that has all been done; but I have the items here. I can put it in when I send the notes back.

Mr. ANTHONY. The grading is almost in solid rock, is it?

Col. TIMBERLAKE. Yes, sir; cut about 3 feet off.

Mr. ANTHONY. You put down concrete slabs, you say?

Col. TIMBERLAKE. Yes, sir.

Mr. ANTHONY. They will be very similar to the paving that is done in a concrete roadbed?

Gen. MACARTHUR. Different surfacing.

Col. TIMBERLAKE. Different surfacing.

Mr. ANTHONY. What do you do, put down concrete first?

Col. TIMBERLAKE. Put down 5 inches of broken stone concrete, then on top of that an inch of just cement and sand for surfacing.

Mr. ANTHONY. If you will put in the record, as Mr. Sisson suggests, the number of yards of grading you propose to do and the number of yards of concrete and finish, then we can get the amount.

Col. TIMBERLAKE. Yes, I can give that, as follows:

The items for the estimate for the above are as follows:

500 cubic yards excavation in earth, at \$4.....	\$2 00
400 cubic yards excavation in rock, at \$10.....	4 00
22,176 square feet granolithic paving, at 30 cents.....	6 53
Catch basins and surface drains.....	0 00

Total.....	12 53
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Gen. MACARTHUR. That is the same kind of work as a sidewalk.

Mr. Sisson. I understand it is so you can have your cadet formations?

Col. TIMBERLAKE. You see, we have to put in a drainage surface so that the water gets under it it will not freeze and heave the pavement.

MAINTENANCE OF BATTERIES.

Mr. ANTHONY. You are asking for the maintenance of the batteries at the Military Academy, \$500. What does that include?

Gen. MACARTHUR. We will cut it out.

Mr. ANTHONY. That means you will get such materials from the Ordnance Department?

Gen. MACARTHUR. Yes, sir.

REPAIR TO POPOLOPEN INTAKE.

Mr. ANTHONY. For the restoration and repair of the Popolopen intake to the Popolopen pipe line, \$500. What is that?

Gen. MACARTHUR. That intake is almost worn out. It might last two years and might last three years without accident; but the work should be started right away.

Mr. ANTHONY. It is necessary?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. You put the word "master" in front of sergeant because of his new classification?

Gen. MACARTHUR. Yes, sir.

Mr. Sisson. What do you mean by the repair and upkeep of quarters of the master sergeant? What do you do with that \$50? What do you actually do with it? There are a good many little items like that.

Col. TIMBERLAKE. I will explain in a minute.

Gen. MACARTHUR. That would cover painting, repairing floors, repairing sashes of windows—everything of that type, sir.

Mr. ANTHONY. If the master sergeant sends around word there is a pane of glass out, you go around and fix it; is that it?

Col. TIMBERLAKE. Yes; and that is charged against this \$50.

REPAIRS TO CADET BARRACKS.

Mr. ANTHONY. For repairs to the cadet barracks, to be immediately available, \$15,000. What is the nature of that expenditure and the necessity for it? Is it an annual expense?

Col. TIMBERLAKE. An annual expense; yes, sir; to keep up the barracks.

Hardware.....	\$356. 60	Oil.....	\$208. 95
Lumber.....	15. 00	Flooring.....	2, 485. 54
Painting.....	6, 270. 00	Labor.....	5, 525. 67
Lamps.....	138. 24		

Mr. ANTHONY. The floors are worn out?

Col. TIMBERLAKE. The floors are worn out, and we are replacing all the wooden floors as they wear out by composition floors.

Mr. CRAMTON. Why immediately available?

Col. TIMBERLAKE. Because the cadets give up the barracks in the middle of June and that is the only time we can get to work, between the middle of June and the middle of August.

Mr. Sisson. Before the next class comes in.

Col. TIMBERLAKE. Yes, sir.

Mr. CRAMTON. That was so near the 1st of July was the reason I asked.

Col. TIMBERLAKE. We have to start as soon as possible in order to get the work done.

Mr. ANTHONY. Will the \$2,000 do for maintaining and improving grounds of post cemetery?

Gen. MACARTHUR. Yes, sir.

CONSTRUCTION OF WALLS IN DANGEROUS PLACES.

Mr. ANTHONY. For continuing the construction of breast-high wall in dangerous places, \$1,000. That has been carried for years

Col. TIMBERLAKE. We are just about \$40,000 nearer through than we expected to be last year.

Mr. ANTHONY. How much more remains to be done?

Col. TIMBERLAKE. I think we can cut that out in about three years. The Quartermaster General from surplus funds last year gave us money for roads that I spent for retaining walls breast high.

Mr. ANTHONY. So you are able to augment these appropriations if you find another department generous enough to give the money to you?

Col. TIMBERLAKE. They had surplus funds the year before and gave me \$40,000 to spend, so I started in surfacing and building to make those old retaining walls permanent and putting the breast high walls on top.

Mr. ANTHONY. How did you take that \$40,000 out of roads, walks, wharves, and bridges? I suppose, in the Army appropriation bill, and used it for the Military Academy?

Col. TIMBERLAKE. Well, there is an invisible line between a post as an Army post and the part of the post as a Military Academy. There are certain parts of the barracks that the Quartermaster General appropriates money for the repairing of, the Army service barracks and others, and six sets of officers' quarters have been built out of Army appropriations. There are certain roads we have built there.

Mr. ANTHONY. That is one very good argument why this West Point bill should be attached to the Army appropriation bill, because your appropriations are paralleling in this respect.

Col. TIMBERLAKE. But we keep them entirely separate, so that any time we can tell just what money has been appropriated for the Military Academy.

Mr. ANTHONY. Yes; but Congress does not know about the allotment of funds appropriated for the Regular Army to West Point unless it comes out in a hearing of this kind.

Col. TIMBERLAKE. But ordinarily we are not allotted for anything there is any appropriation for.

Mr. ANTHONY. Is that the only allotment you have there?

Col. TIMBERLAKE. That was the biggest item we have had. I think in six years. Last year they also authorized \$39,000 to remodel the old laundry into the barracks. We had it in the item last year but the Quartermaster General gave us the money, and we cut it out of the Military Academy item last year.

Mr. ANTHONY. Did the Quartermaster General give you that money or was it ordered from a higher source?

Col. TIMBERLAKE. Well, I do not know just the procedure down the War Department. We put in the estimate and it was approved by the War Department and we were authorized to expend that money. We have a very nice barracks at a cost of \$39,000.

Mr. ANTHONY. It is my opinion, as long as we are appropriating separately for the academy, that is a bad practice. What is your opinion?

Mr. Sisson. It is. How much has been allotted to you during the current year from any fund, from all sources, for the academy?

Col. TIMBERLAKE. I do not think anything.

Gen. MACARTHUR. Nothing, sir.

Mr. Sisson. Well, have you received any properties of any kind?

Col. TIMBERLAKE. We have received quite a lot of surplus material as provided in the Military Academy bill of last year.

Mr. ANTHONY. We provided, for instance, when in constructing garages they should make use of airplane hangars on hand. That is purely economy.

Mr. Sisson. I am not criticizing. I have no purpose of criticizing, but I am asking for the purpose of ascertaining what you had for the current year.

Col. TIMBERLAKE. Yes, sir. Now, to use these hangars for storehouses—I have erected two of those for storehouses. I intended to floor two of them and put in shelves there to store property.

Mr. Sisson. Did you have enough money to convert those hangars into these storehouses?

Col. TIMBERLAKE. Well, the money was only authorized for labor to do this work and I was supposed to get the surplus material for this from the War Department, so I put in an estimate for lumber——

Mr. Sisson. In other words, you used the surplus material there that would otherwise have been of no use to the Government?

Col. TIMBERLAKE. Yes, sir; but I have been unable to get the surplus material. I have put in a list of lumber necessary to put in floors and shelving and I have gotten 55 pieces of 6 by 8 as a result of it.

Mr. CRAMTON. That is the beginning.

Col. TIMBERLAKE. That is a beginning, but I have been told I will not get the rest.

STONE AND GRAVEL FOR ROADS.

Mr. ANTHONY. For broken stone and gravel for roads, \$15,000, and you have \$10,000 for the current year. Can you get along with \$10,000?

Col. TIMBERLAKE. Yes; I can get along with \$10,000.

Mr. Sisson. What are you going to do with that material from the grading of rock; is that road material?

Col. TIMBERLAKE. We usually haul most of that up to the crusher and pile it away there so when we go to build our roads we grind it up in the crusher. We have a crushing plant, too.

Mr. Sisson. You do not then waste the stone that is taken up in grading, as, for instance, the item just above here where we are doing certain grading in front of the barracks?

Col. TIMBERLAKE. No, sir.

Mr. Sisson. You use that stone?

Col. TIMBERLAKE. My policy since I have been there has been to try to do work of this kind where I have got some other building to do. If I have a breast-high wall to do I will do that while I am doing the excavating for this place, so that the two will dovetail together there.

Mr. ANTHONY. You do not waste any raw materials?

Col. TIMBERLAKE. I am not wasting anything.

Mr. ANTHONY. Have you got any road project on hand that will necessitate this \$10,000 for broken stone and gravel?

Col. TIMBERLAKE. Yes, sir; I have got down at the landing, the railroad station there, where all our freight cars come in—it has been a regular loblolly there for years, and the ground is sinking down, and I want to pave that this next spring and summer, then the road around behind the new barracks to get into the cadet store, and most of that is necessary for the upkeep of the present roads.

REPAIR OF BOILERS, ENGINES, DYNAMOS, ETC., CADET MESS.

Mr. ANTHONY. For repairs of boilers, engines, dynamos, etc., cadet mess, to be expended without advertising, to be immediately available. You are asking for \$12,350.

Gen. MACARTHUR. Cut that down to \$3,350. \$9,000 was to go in a new refrigerator system. \$3,350 has been the annual estimate to keep up repairs.

Mr. Sisson. Cut it down to what?

Gen. MACARTHUR. \$3,350.

CADET POLO FIELD.

Mr. ANTHONY. For the repair and improvement of cadet polo field \$1,000. Can you get along with the usual \$600.

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. For waterproofing the post headquarters, bachelor gymnasium, and other large buildings, \$2,000.

Gen. MACARTHUR. That is the annual upkeep, a continuing item.

ITEMS WITHDRAWN.

Mr. ANTHONY. For construction of South Chapel Road and concrete sidewalk across the parade \$59,618.

Gen. MACARTHUR. Withdrawn.

Mr. ANTHONY. For repainting woodwork of the east and west academy buildings, bachelor officers' quarters, cadet chapel, post headquarters and riding hall, two coats of paint, \$24,000.

Gen. MACARTHUR. Withdrawn.

Mr. ANTHONY. For alterations in cadet chapel, \$8,437.

Gen. MACARTHUR. Withdrawn.

Mr. ANTHONY. For care and maintenance of organ in cadet chapel, you want \$50 more?

Gen. MACARTHUR. We will take the old item.

Mr. ANTHONY. I take it it is the same way on all these, for maintenance of labor for repair of field artillery target range.

Gen. MACARTHUR. Yes, sir; a continuing item. We will take the old item.

Mr. ANTHONY. For repair and upkeep of stable No. 4, and correction for purchase of paints, nails, etc., \$300 instead of \$1,000 during current year.

Col. TIMBERLAKE. That is all that is necessary this year.

Mr. ANTHONY. For completion of eight sets of married officers' quarters, for which was appropriated \$20,000 last year.

Col. TIMBERLAKE. Yes, sir.

Mr. ANTHONY. And also for the completion of 20 sets of bachelor officers' quarters.

Col. TIMBERLAKE. No, sir; we are asking for some additional money for that.

Mr. ANTHONY. Have you an item in that bill for it?

Col. TIMBERLAKE. Yes, sir.

Mr. ANTHONY. We will consider that when we come to it.

Col. TIMBERLAKE. Yes, sir. I built the married officers' quarters for \$80,000 but was unable to do the other.

CONVERSION SURPLUS MATERIALS TO ACADEMY.

Mr. ANTHONY. This item, "The Secretary of War is hereby directed to turn over to the United States Military Academy without expense all such surplus material as may be available and necessary for the construction of temporary buildings; also surplus tools," etc. If we should drop that out he still has authority to do that, has he not?

Col. TIMBERLAKE. No, sir. We interpret that that it is only for the fiscal year.

Mr. ANTHONY. Do you think it would be advisable to continue that?

Col. TIMBERLAKE. I do; yes, sir. I called upon all the academic departments for any material or things they needed to carry the instruction of cadets and they submitted, each one of them, quite a long list. Then I submitted, as I was telling you just now, for the building of shelving in these hangars, a list of material, nails, etc., and I got 55 pieces of 6 by 8 and was told that was all the lumber I could get.

Mr. CRAMTON. How did you happen to get those, Colonel?

Col. TIMBERLAKE. I sent one of my officers around to Camp Upton, Port Newark, Camp Kearny, Camp Dix, to look over them. We had been told they had none of this surplus, but I knew they did, so I sent him around to locate it, and at Camp Kearny the officer there said he had reported a lot of lumber.

Mr. ANTHONY. Where is Camp Kearny?

Col. TIMBERLAKE. Down by Port Newark, near Jersey City. He said he had reported a lot of lumber to his superior, which was practically all the lumber we needed, as surplus, but that report got no further than the zone headquarters. The zone headquarters did not report as surplus to the Quartermaster General and still holds it is not surplus and that he needs it in the corps area, which is possibly right, but in view of this I did not see why we were not as much entitled to that as any other place in the corps area.

CONSTRUCTION OF HOTEL.

Mr. ANTHONY. General, you were given authority in the recent Military Academy bills to negotiate for the construction of a new hotel at West Point. Has anything resulted from the authority you were given?

Gen. MACARTHUR. No, sir; it was a very unfavorable time. We tried to interest the hotel men of New York in the project, but they would not touch it. We will continue those efforts through the Association of Graduates. They are trying to interest several of the managers of the larger hotels to take the proposition under advisement. I do not think myself—and I have talked the matter over quite carefully with a number of those men—I do not think myself that they will attempt to erect a hotel, but it may be possible to later on attract some one to consider a memorial in the form of a hotel. The old hotel is a good deal of a scandal, as you know.

Mr. ANTHONY. The old hotel is still being operated?

Gen. MACARTHUR. Yes, sir.

Mr. ANTHONY. Is it under lease or do you simply designate somebody to operate it?

Gen. MACARTHUR. It is under lease, but under our full control.

Mr. ANTHONY. Do you get a revenue from this rental?

Gen. MACARTHUR. No, sir; we get a nominal rental of \$1000 year and we permit the rentee to operate it under general provisions of limitations of rates which are approved by the superintendent.

ITEMS WITHDRAWN.

Mr. ANTHONY. Now, let us take up this bunch of new items 1 of which you say many can be dropped out.

Gen. MACARTHUR. For repairing the riding hall, withdrawn.

The next one for draining target range we drop out. The next one is necessary.

Mr. ANTHONY. That is for subdividing rooms 401 and 402 in academic building?

Gen. MACARTHUR. Yes, sir. We have not section rooms enough and we take two of the larger rooms and cut them up into section rooms.

Mr. ANTHONY. Could you get along another year without doing that if you had to?

Gen. MACARTHUR. No, sir; we expect to get the full capacity next year of 1,334.

Mr. ANTHONY. For increasing seating capacity of philosophy lecture room.

Gen. MACARTHUR. That can be cut out.

EXTENSION OF WATER, SEWER, GAS, AND ELECTRIC SYSTEM

Mr. ANTHONY. For extension of water, sewer, gas, and electric systems to and completion of new bachelor building.

Col. TIMBERLAKE. That is what I want \$25,000 for.

Mr. ANTHONY. You ask for \$15,000.

Col. TIMBERLAKE. Yes, sir. When this estimate was made we were going to get through with the \$15,000, but we are not going. I figured up the work and labor to complete that January 1 and that \$25,000 will be needed to complete and make the connections mentioned.

Mr. ANTHONY. When will this building be completed?

Col. TIMBERLAKE. If I get this money immediately available, will have it the 1st of July.

Mr. ANTHONY. Is the building itself up?

Col. TIMBERLAKE. The walls up and the roof on except the roof. It has been lathed now ready for plastering.

Mr. ANTHONY. Was there any provision made in the original appropriation for taking care of these connections?

Col. TIMBERLAKE. No, sir. At the time that estimate was made or the appropriation made, my estimate for the building was \$15,000 but Congress appropriated \$60,000, then increased it to \$80,000 and I felt I could build this one, but the conditions have been such that I can not, and in neither of those appropriations, even the original estimate, was ever any item included for the sewer, electric, and water connections.

REMODELING OLD CADET HOSPITAL.

Mr. ANTHONY. For remodeling old cadet hospital.

Gen. MACARTHUR. Cut that out.

FOR BUILDINGS, ETC., TO CARE FOR INCREASED NUMBER OF CADETS.

Mr. ANTHONY. To provide the necessary buildings and other improvements to accommodate and care for the increase in the Corps of Cadets.

Gen. MACARTHUR. That was completed yesterday.

Mr. ANTHONY. That is the building program?

Gen. MACARTHUR. Yes, sir; we withdrew the estimate of \$3,000,000, substituting an estimate of \$500,000 to continue the old plan.

Mr. Sisson. So this item can be cut out?

Gen. MACARTHUR. Yes, sir; cut down to \$500,000.

Mr. ANTHONY. And the same way with that proviso about funds to be expended without advertising?

Gen. MACARTHUR. We were to draw you up a new paragraph with reference to that \$500,000, which we will send down to you, sir. The new estimate is as follows:

To provide the necessary buildings and other improvements to accommodate and care for the increase in the Corps of Cadets at the United States Military Academy as provided by the act of Congress approved May 4, 1916, and in general accordance with the plans submitted by the board of officers convened under authority of act of Congress making appropriations for the support of the United States Military Academy, approved August 11, 1916, \$500,000: *Provided further*, That the Secretary of War shall cause the work, herein provided for, to be done and performed under the direction and supervision of the Superintendent of the United States Military Academy.

The above amount is derived from the following list made December 1, 1916, brought up to date September 1, 1920.

Cadet mess hall, store, and drawing academy, 2,943,375 cubic feet.....	\$1, 836, 200
Furniture and fittings for above No. 1.....	60, 578
New cadet barracks (site present mess hall), 1,608,500 cubic feet.....	1, 058, 241
Furniture and fittings for No. 3.....	50, 000
Furniture and fittings, cadet hospital.....	30, 000
Alterations academic buildings (east and west).....	52, 500
Furniture and fittings for No. 6.....	5, 000
Gymnasium (new north wing), 485,800 cubic feet.....	345, 246
Additional equipment.....	20, 000
32 sets married officers' quarters.....	520, 000
Army service barracks increase.....	75, 000
Enlarging band practice room, 37,500 cubic feet.....	18, 000
Engineer barracks for 150 men.....	213, 700
Two double sets noncommissioned officers' quarters.....	45, 000
Ten sets quarters, married enlisted men.....	100, 000
Quartermaster truck train garage.....	45, 000
New stable for 250 animals.....	355, 000
Ice storage house.....	13, 000
Veterinary hospital.....	25, 000
Total.....	4, 827, 465

Mr. ANTHONY. Now, with regard to this language here on page 47, do you not think that had better go out, Col. Timberlake?

Col. TIMBERLAKE. It is not so material now, sir; because we are not only running a Military Academy, and that allotment we get from the Quartermaster General all is one account. I keep in my records up there every one of these items upon a separate allotment sheet, just the same as a separate allotment made from the War

Department to any other post, and I keep any expenditure made for that purpose right in that allotment, just as shown right here. That is all copied here from my allotment [referring to paper].

Mr. ANTHONY. Is there anything else you want to tell us, General? Gen. MACARTHUR. No, sir.

NEW LANGUAGE—EXEMPTION OF CIVIL-SERVICE REGULATIONS IN CONSTRUCTION WORK.

Col. TIMBERLAKE. Mr. Chairman, I would like to get a provision of this kind [handing paper to chairman]. The first part, the typewritten part, is new and is part of the regulations of the engineering act of Congress, which this was copied from, and the latter part is to exempt the constructing quartermaster there from the operation of civil-service regulations in his construction work.

Mr. ANTHONY. It reads:

Provided, That the funds hereinbefore appropriated may be expended without advertising when in the opinion of the responsible constructing officer and superintendent it is most economical and advantageous to the Government to dispense with advertising, and the construction quartermaster shall be exempt from civil-service regulations in this construction work.

Col. TIMBERLAKE. I would like to explain why that is desired.

In letting out this construction work up there, if the bids are satisfactory, and I think I can do that considerably cheaper than the lowest bid, I want to be able to throw the bids away and go ahead and do the work by the purchase of material and hire of labor.

I am satisfied, for instance, in this hospital which is allotted \$400,000, and the lowest bid is \$662,000, if those restrictions can be removed, I am satisfied that I can build it for \$100,000 less than the lowest bid, and save the Government that much on the building. In fact, I would almost go a great deal further than that, but I feel perfectly safe in saying that much, and that will bring the cost of the building down to what I estimated the cost of the building in 1918. That \$400,000 was my estimate in 1916, but in 1918 I wrote to the Senate committee, and told them that that building would cost \$554,000, and I feel sure that I can build a building for \$554,000 but I do not want to undertake such a proposition of that kind: every mechanic, every mason, every carpenter, every electrician, and every man on it except the common labor I have got to get through a civil-service regulation.

Mr. ANTHONY. In other words, you want to be able to hire and fire the men.

Col. TIMBERLAKE. To hire and fire as I pleased, and I can get better labor, and I can control them better. But the civil-service regulations there now require me to go to the Civil Service Commission for everything above common pick-and-shovel labor. I have to get an eligible list. They will send me a list after awhile of masons, for instance, and I have to write those masons and see if they will come and work on the job at our rates. Nine times out of ten they will say no. I have been three or four months trying to get an architectural draftsman. Every one they put on the eligible list, though they stated on their examinations that they would accept at the salary that we offered, still at the time the proposition was put before them they would not accept. So that delays and hampers a

most of those men are old men on the eligible list, who can not keep up with the outside world, and they have gotten on this civil service eligible list so when these jobs are open you have to take them.

Mr. Sisson. Mr. Chairman, is it not true that the private contractor that is awarded the bid would have the right to employ his labor any way he pleased?

Col. TIMBERLAKE. The private contractor would. But not for my own work, when I do not contract. I am building those flats. I purchased the material and hired the labor.

Mr. Sisson. I will say without one moment's hesitation that I will gladly vote for the latter part of the resolution to exempt you from civil service. For the first part of it I prefer to have more than the man who is going to do the work pass on it. You put it in the alternative "the man who is to expend the money or the superintendent." It ought to be "and the superintendent."

Col. TIMBERLAKE. Well, the disbursing officer and superintendent. It is us. We are going to do it.

Mr. Sisson. I understand.

Col. TIMBERLAKE. The reason for that is that here last year I had about \$1,500 for painting the academic buildings. I let out specifications and bids specifying so many rooms in the academic buildings, the ones that needed it most—the hallways, stairways, etc. Under specifications to bidders I had two bids. Two bidders came in close together. I think their bids were within \$150 of each other, but the lowest bid was about \$85 over the amount of money I had. So I then, as a business proposition, rejected those bids, and took the lowest bidder, found out his prices for this amount of work, I deducted so many rooms, three rooms, I think it was, from the original thing, and made a contract for the amount of money—we had a few dollars left, but in proportion to what his bid was. The Judge Advocate General of the Army said the contract was illegal; I had no business to make it, and instructed the superintendent to see that we did not make such contracts in the future. He said I ought to readvertise. It was the time when labor and material were all going up. If I had readvertised there was no doubt in my mind that we would have gotten less work done—it would not have cost the Government any more but we would have gotten less work done because I would have had to cut out more rooms if I readvertised. So I thought it proper to cut the lowest bidder down enough to come within the amount of money I had to spend.

There is another matter. The Quartermaster General allowed \$39,000 for the conversion of this old laundry into barracks. Coming toward the end of the year I could not get enough labor; in fact, I could not hold the money beyond June 30. So I let out proposals for somebody to do the labor, which consisted in masonry, carpentry, and some pick and shovel work for excavation. I received only one bid. I had \$9,800 approximately left. I received only one bid to do that work which was about \$18,000. There were other bidders who wrote me they were not in a position at that time to bid, but along with this one bid to do the entire work was a bid of a carpenter to do the carpenter work for \$3,200, the mason was going to do the mason work for about \$3,000. They were only bidding on certain parts of the work and there was only one man who included it all, and I got his prices and his price for the excavation would have been about

\$3,000. So I sent for him and asked him if he would not take the other men as subcontractors at their prices, and do all the work for \$9,800 which I had. He bid about \$18,000. He said no, he would not do any of it unless he got it all and at his price. I said well, won't you do the excavation at the price you stated in there? No, it is all or none.

So then I got this carpenter and this mason together, and asked them if they could not arrange to do the excavation and make me a price—they already had covered the carpentry and masonry—if they would not make me a price for the whole thing including the excavation, and I did not let them know that this other man was not going to bid on the thing. They came in with a written proposition that they would do all the work for \$9,000. The Judge Advocate General says that is an illegal contract.

Mr. ANTHONY. You want to be in a position where if the bids are not satisfactory to jump in and do it yourself?

Col. TIMBERLAKE. I want to do it as a business man would do it.

Mr. ANTHONY. I think we understand your proposition.

Col. TIMBERLAKE. I am trying to save the Government money.

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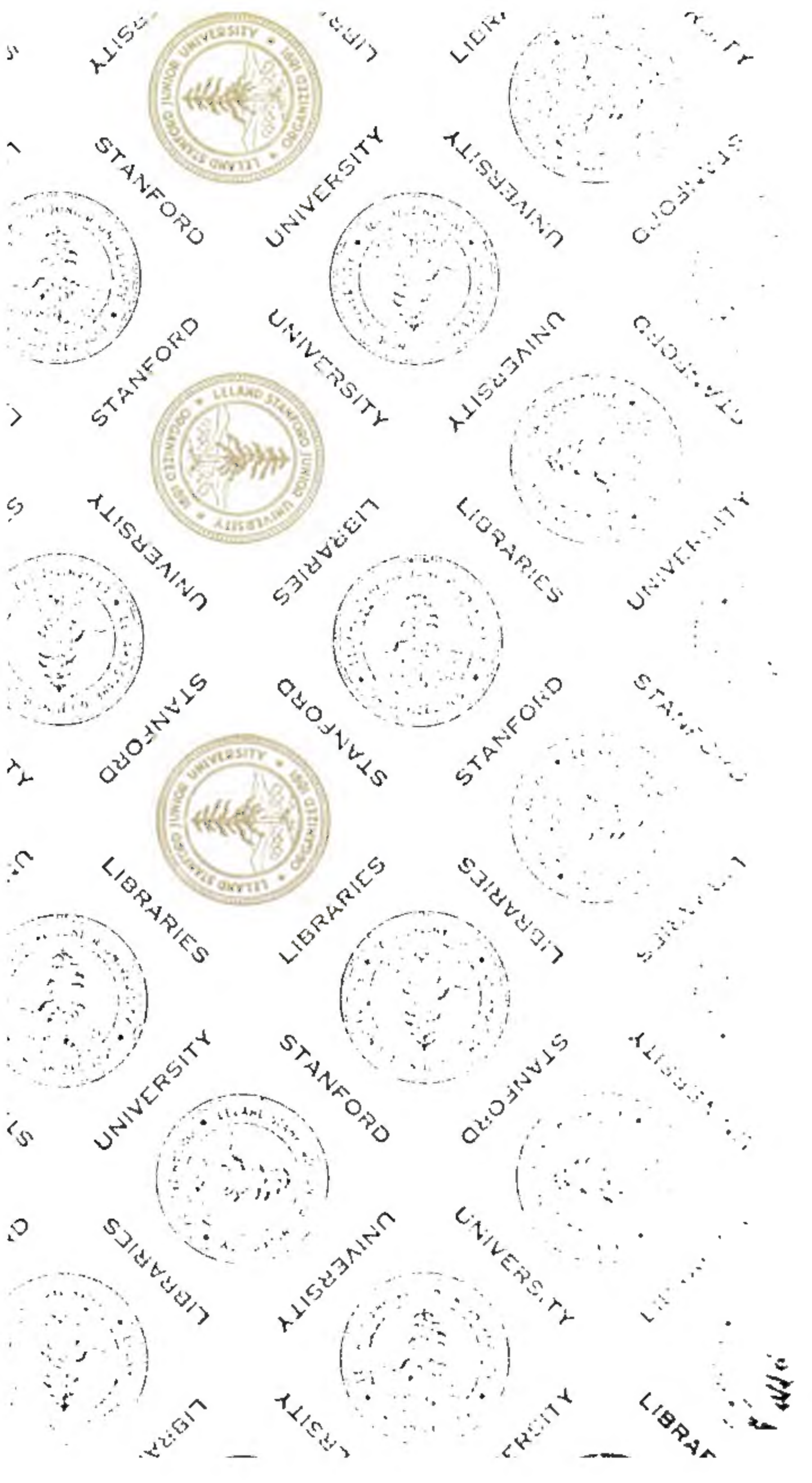
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